SEXUAL BEHAVIOUR AND BARRIERS TO STI TESTING AMONG YOUTH IN NORTHEASTERN BC

by

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ABSTRACT

**Introduction:** Oil/gas communities across Northeastern British Columbia are experiencing rapid immigration of young, primarily male workers in response to an economic ‘boom’ in the oil/gas sectors. Accompanying the ‘boom’ has been a rise in rates of sexually transmitted infections (STIs) among young people, with Chlamydia rates among youth in the Northeast exceeding the provincial average by 22%. Previous research indicates that socio-cultural and structural determinants of youth sexual behaviour and access to STI testing are important for understanding youth sexual health disparities – and represent key targets for STI prevention efforts. No other research has explored STIs in this rapidly developing, under-resourced context. Therefore, objectives of this thesis were to: (1) Examine how socio-cultural and structural features related to the oil/gas ‘boom’ affect the sexual behaviour of young people in Fort St. John (FSJ), BC; (2) Gather the perspectives of youth and their service providers on the socio-cultural and structural barriers to STI testing in FSJ; (3) Develop recommendations to improve the accessibility of STI testing. **Results:** Participants identified 4 main ways in which the socio-cultural and structural conditions created by the ‘boom’ affect sexual behaviours, fuelling the spread of STIs in FSJ: mobility of oil/gas workers; binge partying; high levels of disposable income; and gendered power dynamics. As well, 5 key barriers to STI testing among youth were identified: limited opportunities for access; geographic inaccessibility; local social norms; limited information; and negative interactions with providers. **Discussion:** These data indicate that the conditions fostered by the ‘boom’ in FSJ exacerbate sexual health inequalities among young people. They can be more widely contextualized as an example of the unintended – but not unexpected – health and social implications of a resource-extraction ‘boom’, illustrating the fallacy of ‘development’ as representing uniformly positive ‘progress’. Recommended actions include STI prevention and testing service delivery models that incorporate a locally tailored public awareness campaign, outreach to oil/gas workers, condom distribution, expanded clinic hours and drop-in appointments, specialized training for health care providers, and intersectoral partnerships.
between public health, non-profit organizations, and industry. An ongoing knowledge translation internship has been undertaken to implement some of these recommendations.
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CO-AUTHORSHIP STATEMENT

Under the supervision of Dr. Jean Shoveller (PhD, UBC) and co-supervision of Drs. Mieke Koehoorn (PhD, UBC) and Aleck Ostry (PhD, UVIC), I designed and implemented this study, including all aspects of data collection and analysis.

1. Identification and design of research program: The research proposal was drafted by Goldenberg, with editorial and substantive input from Drs. Shoveller, Koehoorn, and Ostry.

2. Performing the research: The research was performed by Goldenberg.

3. Data analyses: The data were primarily analyzed by Goldenberg. Goldenberg consulted with the research team throughout the course of the analysis to discuss emergent findings, and incorporated the input of Drs. Shoveller, Koehoorn, and Ostry into her data analysis.

4. Manuscript preparation: The two manuscripts contained in this thesis were primarily written by Goldenberg. Goldenberg consulted with Drs. Shoveller, Koehoorn, and Ostry during manuscript preparation and incorporated input from the three co-authors into later drafts.
1.0 INTRODUCTION

1.1 INTRODUCTION

1.1.1 Sexually Transmitted Infections among Youth and the Oil/Gas ‘Boom’ in Northeastern BC

Northeastern BC is in the midst of an oil/gas ‘boom’. Communities in this part of the province are currently experiencing rapid and massive in-migration of young people (mostly men) who are attracted by the high-paying jobs in the oil/gas sectors. These jobs require workers to spend considerable periods of time in remote worksites and camps (Bowser, 2006; Harden, 2006; Coates, 2001). When oil/gas workers come ‘off shift’, their time off in adjacent towns often involve ‘binges’ on alcohol and/or drugs (Brown et al., 2003; Cullen, 2006). The resultant demographic and social disruptions that occur in towns and cities located near these oil/gas worksites and camps (Freudenberg 1984) pose serious public health problems, such as those related to STIs (Harding, 2007). Recently, health and social impact assessments of other energy mega-projects (e.g., the MacKenzie Gas Pipeline) have identified concerns related to the spread of STIs anticipated to accompany the rapid influx of young workers and income (Health Canada, 2006; Sharpe-Staples, 2006; Indian and Northern Affairs Canada, 2006).

Accompanying the ‘boom’ has been a rise in rates of sexually transmitted infections (STIs) among young people. While rates across BC are high and rising (e.g., Chlamydia rates among youth have doubled since 1997 and exceed the national average) (BC Centre for Disease Control, 2005), they are disproportionately high among young people located in resource-extraction communities in BC’s Northeast. In 2005, Chlamydia rates among youth ages 15-24 exceeded the provincial average by 22% (1168 per 100,000 in the Northeast compared with the
BC average of 955 per 100,000) and represented a 21% increase since 2000.¹ In this thesis, the STI epidemic in Northeastern BC will be analysed as a pressing public health issue in BC, as well as within the wider context of the unintended health and social impacts of a resource-extraction ‘boom’.

1.1.2 Unpacking ‘Development’: Health and Social Impacts

Typical uses of the term ‘development’ carry the assumption that ‘progress’ is being made on all fronts, including economics, health and social well-being. These notions permeate scientific, economic and even literary discourses, as the following excerpt from the novel *Gabriela, Clove and Cinnamon* (Amado, 1962) illustrates. The quote, taken from the introduction of a novel describing a cacao ‘boom’ in a remote town in Brazil, portrays the expected social and economic results of an economic ‘boom’ and illustrates commonly-held assumptions about the experience of ‘progress’ in rapidly ‘developing’ places, especially those driven by resource-extraction:

¹ These data have been provided by the Division of STI/HIV Prevention and Control, British Columbia Centre for Disease Control (2006). The following information should be considered when considering these rates. Firstly, they are based on lab-confirmed Chlamydia cases among individuals who report home addresses in the Northeast Health Service Delivery Area or who do not provide a home address but are tested in the Northeast Health Service Delivery Area. While migrant workers could be underrepresented in these rates, the BCCDC estimates that only 0-1% of all STIs diagnosed within the Northern Health Authority annually are among out of province cases. Secondly, these rates may not fully distinguish between new cases and individuals who have been re-infected, as the rates only account for cases of re-infection within a narrowly defined period of time (e.g., 30 days). Among populations with high levels of multiple and/or concurrent sexual partners (i.e., where contacting and treating index cases as well as sexual partners is particularly challenging), the rates could represent an overestimate of Chlamydia cases. However, since testing rates in Northeast BC remain low (e.g., no targeted programs to increase testing have been introduced, compared with other areas of BC) and in light of the sexual behaviours (chapter 2) and barriers to testing (chapter 3) presented in this thesis, it is unlikely that the rates represent an overestimate of the incidence of STIs. Lastly, while Chlamydia rates have not disproportionately increased in comparison to the provincial rate, this may be explained by the fact that STI incidence is very high and rising in southern communities such as Vancouver (e.g., especially in the city’s downtown east side, where injection drug use and sex work have gained international attention), which accounts for a large proportion of the provincial increase.
“The crop gave promise of being the biggest in history. With cacao prices constantly rising, this would mean greater wealth, prosperity, abundance. It would mean the most expensive schools in the big cities for the colonels’ sons, homes in the town’s new residential sections, luxurious furniture from Rio, grand pianos for the parlors, more and better-stocked stores, a business boom, liquor flowing in the cabarets, more women arriving in the ships, lots of gambling in the bars and hotels – in short, progress, more of the civilization everyone was talking about.” (Amado, p.5, 1962)

However, there is a need to unpack the rhetoric underpinning notions of ‘development’ and ‘progress’, especially the idea that the conditions created by economic ‘boom’ translate uniformly into gains in health and social well-being. While the universality of the benefits of economic ‘boom’ have been critiqued within the international development literature, very little work has been done to examine the potentially variegated and/or negative impacts that ‘booms’ may have on health and social well-being. Much of the critique of development within the international development literature has focused on ‘development’ projects in resource-poor settings and their unintended negative consequences. For example, large-scale energy projects promoted by major donors such as the International Monetary Fund (IMF) and World Bank have been criticized for some problematic outcomes including population displacement, poverty and infectious disease. Some authors have described a ‘resource curse’ plaguing oil-rich nations, referring to the fact that at the national level, petroleum resources have been associated with increased socio-economic inequality and political unrest (Ross, 1999; Schubert, 2006). Within resource-extraction communities and regions in Africa, Asia, and Latin America, academics, community organizations, and resource-extraction companies themselves are beginning to understand the public health impacts of the oil/gas and mining sectors on the HIV/AIDS
epidemic (Steen et al., 2004; Palmer et al., 2002; Clift et al., 2003; Lurie et al., 1997; Hughes, 1991; Jobin, 2003; Faas et al., 1999; Total Oil, 2007; Chevron Corporation, 2005).

While the negative implications of resource-extraction have received some attention in other parts of the world, these criticisms are largely absent from the contemporary health literature pertaining to North American resource-extraction communities. While some earlier work has critiqued the impacts of ‘boom - bust’ cycles in the natural resource economy (Innis, 1933), an implicit assumption exists in recent literature that the negative impacts of resource-extraction documented in other contexts are not applicable to Western nations. Some authors have attributed this to a bias in research and political interest which tend to favour the experiences of urban centres over those of ‘peripheral’ resource-extraction communities (Barnes and Hayter, 2004; Hayter, Barnes, and Bradshaw, 2003). In North America, most of the research that has been conducted has focused on the environmental and occupational health impacts (Feltmate, 1998; Stephens and Ahern, 2001; Timoney and Lee, 2001; Guidotti, 1995; Ostry et al, 2000); while, little research has investigated the health and social well-being of communities that host these industries (Veiga et al., 2001).

Moreover, there is a paucity of Canadian research into the unintended consequences of ‘development’ – particularly within the natural resource economy. British Columbia’s economy is largely based on resource-extraction and is undergoing significant changes associated with dependence on sectors such as oil/gas, mining, forestry, and fishing (Coates, 2001; Hayter, Barnes, and Bradshaw, 2003; Hayter and Barnes, 2003). Communities that depend on these sectors are exposed to social, economic, and demographic changes associated with a ‘boom’ in these sectors (e.g., the influx of workers, income, drugs and alcohol), as well as those experienced during a ‘bust’ (e.g., unemployment, depression, social unrest). Such ‘boom-bust’ cycles largely characterize the history of resource-extraction communities in rural and remote
BC and render populations living in these places as highly vulnerable to these cycles and their health and social implications.

In this thesis, the example of STIs among young people in a community in Northeastern BC will be used to demonstrate the unintended health and social implications of an economic ‘boom’ related to resource-extraction in a rapidly urbanizing and remote North American city. To the best of my knowledge, no other research has explored STIs among youth in North American resource-extraction communities experiencing the health and social impacts of economic ‘boom’.

1.2 LITERATURE REVIEW: SOCIO-CULTURAL AND STRUCTURAL DETERMINANTS OF STI STATUS

While traditional epidemiological approaches tend to focus on the individual risk factors associated with negative health behaviours and/or outcomes, research indicates that changes in individual knowledge and skills provides an insufficient basis for understanding long-term behaviours or achieving population-level reductions in STI rates (Rothenberg et al., 2005; Poundstone, Strathdee, and Celentano, 2004; Wasserheit and Aral, 1996; Gunatilake, 1998). Unfortunately, far less attention has been paid to the wider socio-cultural and structural circumstances that may put people at “risk of risks” (Frolich and Potvin, 2008). In particular, previous work has demonstrated how traditional epidemiological approaches to youth sexual health tend to discount the “embeddedness” of youth in their social structures and contexts (Shoveller et al., 2004; Shoveller and Johnson, 2006). The following literature review elucidates the importance of socio-cultural and structural determinants of STI status in resource-extraction settings, which can be broken down according to the determinants of youth sexual behaviour and barriers to accessing STI testing services.
1.2.1 Youth Sexual Behaviour in ‘Boomtowns’

Socio-cultural and structural determinants of sexual behaviour (e.g., gender; social norms; culture; stigma; socio-economic inequalities) are increasingly recognized as critical for understanding sexual health outcomes (Shoveller and Johnson, 2006; Bendall et al., 2007; Waldo and Coates, 2000; Shoveller et al., 2004, Langille et al., 2001). In particular, their unequal distribution has been shown to be important factors that put certain sub-populations at risk of STIs (Potterat et al., 2002; Rhodes et al., 2005; Poundstone et al., 2004; Bronfenbrenner, 1995). However, this is understood not only as central to understanding the spread of STIs, but as key for the control of STIs. As Rhodes et al. (2005) put it, “If [HIV] risk is socially produced then so too are public health solutions”. Thus, an understanding of these determinants and the ways in which they intersect to put certain sub-populations at risk are research priorities for reducing sexual health disparities.

‘Core group’ theory is one way in which the STI literature has recently conceptualized this issue. Sexual network structure is understood as a key determinant of STI propagation (Potterat et al., 2002; Jolly and Wylie, 2002; Rothenberg et al., 2005). ‘Core groups’ of individuals who experience high rates of STIs, concurrent relationships, and partner change are believed to disproportionately contribute to the spread of STIs (Potterat et al., 1999; Wylie and Jolly, 2001; Elliott et al., 2002; Apostolopoulos et al., 2002). Underpinning this theory is the importance of social and structural context, as ‘core groups’ tend to be spatially distributed (i.e., concentrated in geographic STI ‘hot spots’) and socially interconnected (i.e., sexual network structure) in ways that promote disease spread (Rothenberg et al., 2005). This thesis is based on the hypothesis that young people who live and work in resource-extraction communities in Northeastern BC constitute an example of a ‘core group’ of STI transmitters, representing an important population to target for intervention.
Similar patterns related to ‘core groups’ have been documented in other contexts. Resource-extraction communities in some African countries (e.g., South Africa, Kenya) experience disproportionately high rates of STIs, including HIV (Desmond et al., 2005; Steen et al., 2000, Palmer et al., 2002; Campbell and Williams, 1999; Clift et al., 2003; Meekers, 2000). Postulated mechanisms related to sexual behaviour include: (1) long separations from regular sex partners may make it acceptable for young male workers to engage in concurrent relationships with multiple casual partners; and (2) their exposure to novel social environments may remove traditional social controls over sexual behaviour in ‘home’ villages (Brockerhoff and Biddlecom, 1999; Desmond et al., 2005; Lurie, 1997). Young men and women in resort communities also experience high rates of STIs (Rogstad, 2004; Clarkson, 1998), both amongst transient workers and young tourists who reportedly engage in ‘binge’ partying, which results in frequent and unprotected sex while temporarily unconstrained by their usual social contexts (Apostolopoulos et al., 2002; Bellis et al., 2004; Smith and Rosenthal, 1997; Mattilla et al., 2001; Burrows and Olsen, 1998; Maticka-Tyndale and Herold, 1997; Ryan and Kinder, 1996; Eiser and Ford, 1995). While the literature on African resource-extraction communities and resort communities provides a number of mechanisms that could explain in part high STI rates in Northeastern BC, their relevance to this population has not been previously documented. It is hypothesized that such patterns of sexual behaviour also manifest in North American resource-extraction communities experiencing the rapid influx of young people (especially men).

1.2.2 Barriers to STI Testing Services

A strong public health impetus exists to address the STI epidemic by providing STI testing to youth in Northeastern BC. STIs are largely preventable and treatable, and testing and treatment represent effective means of reducing the disease burden (Miller, 2005; Patrick, 1997).
Undetected and/or untreated, STIs pose serious health consequences, including pelvic inflammatory disease, infertility, and ectopic pregnancy. Moreover, STIs are synergistic, in that acquiring one increases the risk of others, including HIV. Evidence suggests that targeting STI testing at ‘core groups’ may have a disproportionately large impact on STI prevention (Elliott et al., 2002; Jolly and Wylie, 2002; Potterat et al., 2002).

However, a large body of literature has documented a spectrum of socio-cultural and structural barriers to youth accessing STI testing. These include *stigma, shame, and social discomfort* (Fortenberry et al., 2002; Scoular et al., 2001; Evans et al., 2002; Uuskula et al., 2006; Merzel et al., 2004; McKay, 2006; Cunningham et al., 2002; Gotz et al., 2005); *privacy concerns* (Ackard and Neumark-Sztainer, 2001; Klein and Wilson, 2002; Bethell et al., 2001; Blake et al., 2003; Nwokolo et al., 2002); *limited information* (Evans et al., 2002; Tilson et al., 2004, Uuskula et al., 2006; Fortenberry et al., 2001); *clinic locations, hours of operation and wait times* (Uuskula et al., 2006; Moses and Elliott, 2002; Nwokolo et al., 2002; Tilson et al., 2004; Evans et al., 2002; Fortenberry and Zimet, 1999). Characteristics of health care providers have also been identified as potential barriers to youth being tested for STIs, including concerns related to the *gender of providers* (Langille et al., 2001; Kapphahn et al., 1999), *judgmental behaviour*, and *inadequate training in sexual health service provision* (McKay, 2006; Langille and Rigby, 2006; Nwokolo et al., 2002; Shafer et al., 2002; McNulty et al., 2004). However, most of this research pertains to urban youth, typically recruited from STI clinics (Fortenberry, 1997; Scoular et al., 2001). Therefore, there is a need to evaluate barriers to STI services in the wider population (Shoveller et al., 2004; Fortenberry et al., 2002; Langille and Rigby, 2006; Tilson et al., 2004) and particularly as they pertain to ‘core groups’ to be targeted for STI prevention efforts. Since many of these barriers are related to features of the socio-cultural and structural environment, they are likely to vary between communities and are hypothesized to be particularly challenging in resource-extraction communities in BC’s Northeast.
1.3 THESIS OBJECTIVES

To address the STI epidemic among Northeastern youth in ways that reflect their needs and are sensitive to socio-cultural and structural contexts, public health systems require detailed information from the perspectives of local youth and their service providers. Thus, an in-depth examination of the socio-cultural and structural circumstances that may affect youth sexual behaviour and access to STI testing from the perspectives of youth and their service providers is warranted. Ethnographic research techniques (e.g., participant observation fieldwork, in-depth interviews) are ideal for elucidating social and structural conditions from the perspectives of the local population, especially regarding stigmatized topics such as sexual health (Wolcott, 1999; Fetterman, 1998; Brink and Edgecombe, 2003; Power, 2002; Day, 2001; Desmond et al., 2005). By gathering such information in a resource-extraction ‘boomtown’, interventions for STI testing and prevention can be developed that are tailored and targeted to the needs of young people in this setting. Therefore, objectives of the current thesis are to:

1. Examine how socio-cultural and structural features are perceived to affect the sexual behaviour of youth in one oil and gas ‘boomtown’ in Northeastern British Columbia;
2. Gather the perspectives of youth and their service providers on the socio-cultural and structural barriers to STI testing in the same ‘boomtown’; and
3. Develop recommendations to improve the accessibility of STI testing in “booming’ North American resource-extraction communities.
1.4 THESIS OUTLINE

The current thesis includes two manuscripts, in addition to this introductory chapter (Chapter 1) and a concluding discussion chapter (Chapter 4). The first manuscript (Chapter 2), entitled ‘Sexual Behaviour and STI Prevention among Youth in a Boomtown: the Need for Innovative Approaches to STI Control’, focuses on how socio-cultural and structural forces affect sexual behaviour. The second paper (Chapter 3), ‘Barriers to STI Testing Among Youth in an Oil/Gas Community’, demonstrates how socio-cultural and structural factors affect access to STI testing services. The last chapter (Chapter 4) includes a discussion of the relationship between the two manuscripts and contextualizes these findings within the wider state of knowledge in the field, highlighting key implications and recommendations for public health service delivery and suggesting directions for future research.
1.5 REFERENCES


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2.0 SEXUAL BEHAVIOUR AND STI PREVENTION AMONG YOUTH IN A BOOMTOWN: THE NEED FOR INNOVATIVE APPROACHES TO STI CONTROL

2.1 INTRODUCTION

In British Columbia (BC), Canada, Chlamydia rates among youth have doubled since 1997 and exceed the national average (BC Centre for Disease Control, 2005). In 2005, BC’s Northeast experienced a 10% increase in Chlamydia rates, exceeding the provincial average by 38% (294.6 cases per 100,000 compared with the BC average of 213.3) (BC Centre for Disease Control, 2005). Northeastern BC is experiencing rapid in-migration of young people (mostly men), attracted by the ‘booming’ oil/gas industries that feature high-paying jobs located ‘on the oil patch’. The resultant demographic and social disruptions that occur in towns and cities located near these remote oil/gas worksites and camps (Freudenberg, 1984) pose serious public health implications related to STIs (Health Canada, 1997).

Previous research suggests that socio-cultural and structural features of communities are important determinants of sexual health outcomes (Aral, 1999; Shoveller et al., 2004; Langille et al., 2001). Places with a large proportion of young, single persons are believed to promote the spread of STIs (Elliott et al., 2002) due to high rates of sexual partner change, concurrent partnerships, and efficient sexual networks (Wasserheit and Aral, 1996). Resource-extraction (e.g., oil, gas, and mining) communities in many African countries experience disproportionately high rates of STIs, including HIV (Desmond et al., 2005; Steen et al., 2000; Palmer et al., 2002; Clift et al., 2003). Postulated mechanisms include: (1) long separations from regular sex partners make it acceptable for young male workers to engage in concurrent relationships with multiple partners.
partners; and (2) novel social environments remove people from the social controls over sexual behaviour inherent in their ‘home’ communities (Brockerhoff and Biddlecom, 1999). Young people in resort communities also experience high rates of STIs (Rogstad, 2004; Clarkson, 1998), where ‘binge’ partying has been associated with frequent and unprotected sex while temporarily unconstrained by one’s usual social context (Apostolopoulos and Sonmez, 2002; Bellis et al., 2004).

In North America, research has traditionally focused on the environmental and occupational health impacts of resource-extraction (Timoney and Lee, 2001), while little research has investigated the health and social well-being of communities that host these industries. Thus, we undertook a study to examine how socio-cultural and structural features related to the oil/gas ‘boom’ are perceived to affect the sexual behaviour of young people in a Canadian ‘boomtown’.

2.2 METHODS

2.2.1 Study setting

Fort St. John (pop: 17,402) (FSJ) is the centre of BC’s oil/gas industry. Since 2001, the city has been experiencing a natural gas ‘boom’, boosting median family income 15% above the provincial average ($63,407 CAN versus $54,840) (BC Stats, 2006a). The local economy is highly dependent on oil/gas and mining, as indicated by an income dependency of 32% on these sectors (BC Stats, 2006a).

FSJ’s official population (according to Statistics Canada’s Census) has increased by 8.4% (e.g., from 16,051 to 17,402) during the past five years (Statistics Canada, 2006). FSJ’s population aged 15-29 is growing at three times the provincial average (BC Stats, 2006a) and is
disproportionately male (e.g., 107.2 males per 100 females, compared with 98.3 in BC) (BC Stats, 2006a). In addition to the new residents of FSJ, the influx of oil/gas workers who temporarily reside in adjacent camps cause FSJ’s population to double during the drilling seasons (autumn and winter).

Oil/gas workers are typically lodged for 20-28 day shifts in camps located several hours’ driving distance from town. During their time off, many workers travel to urban centres (mainly FSJ) and engage in alcohol and/or drug ‘binges’ in FSJ’s bars and nightclubs. In FSJ, there are 3 dance clubs, 3 strip clubs, as well as bars and pubs in most hotels. Informal parties in hotel and motel rooms as well as in private homes also are important venues for binge drinking and drug use. Since the ‘boom’, rates of STIs such as Chlamydia have been 2-3 times higher than the provincial average. Among youth ages 15-24, there were 2014 cases per 100,000 persons in FSJ compared with the BC average of 955 in 2005.3

2.2.2 Data collection and analysis

The study was informed by ethnographic research techniques (Fetterman, 1998; Power, 2002). Ethics approval was obtained from the University of British Columbia and the local health authority (Appendices A-C, G-H). Data were collected using participant observation (8 weeks) and in-depth interviews with 25 young men and women (15-25 years) and 14 health/social service providers. Fieldwork included observations and informal conversations with young people, service providers, and other adults, as well as attending functions relevant to sexual health (e.g., parent meetings on sex education; public health meetings). Fieldwork contextualized information gathered during in-depth interviews and

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3 Data provided by the Division of STI/HIV Prevention and Control, British Columbia Centre for Disease Control (2006).
provided opportunities to recruit interview participants, as did posters and pamphlets at clinics, youth centres, restaurants, coffee shops, gyms, community centres, and community agencies (Appendices D, F). Eligibility criteria for youth interviews were: 15-25 years old, English speaking, and self-identified as sexually active (Appendix E). Eligible service providers were employed as health or social service providers in the community.

On average, each interview took 1 hour. Interviews were semi-structured and consisted of open-ended questions that were modified to pursue emergent concepts as data collection and analysis progressed (Glaser, 1978) (Appendices I-K). Youth and service providers were asked to provide their perspectives on how the ‘boom’ affects sexual behaviour among young people. Participants completed a brief socio-demographic survey that was used to describe the general characteristics of the sample (Appendices M-N). Follow-up interviews were conducted with 5 youth that built on concepts that emerged during initial interviews and fieldwork and enabled ‘member checking’ (e.g., asking for youth’s feedback) (Appendix L). The software QSR NVivo was used to manage data coding. As data collection and writing progressed, the data were analyzed to understand the ways in which socio-cultural and structural features of Fort St. John are perceived to affect youth sexual behaviour.

2.3 RESULTS

2.3.1 Sample characteristics

Thirteen youth participants were female. Average age of the youth participants was 20 years. Fourteen identified their ethnicity as White, 10 as Aboriginal, and 1 as Black. Fifteen youth participants were students and 8 had experience working in the oil/gas industry. Twelve
lived with their families, 6 with friends, 3 with partners, and 4 with others (e.g., university residence, work camps). Ten health care workers were interviewed: 4 public health staff and 6 medical clinic staff. Four social service providers employed at youth organizations also participated. Ten providers were female and 11 identified as White.

2.3.2 Youth sexual behaviour in Fort St. John

Study participants identified the mobility of the oil/gas workforce, ‘binge’ partying, high levels of disposable income, and gendered power dynamics as key socio-cultural and structural conditions that affect youth sexual behaviour and promote the spread of STIs.

2.3.2.1 Mobility of Oil/gas Workers

Participants suggested that the transience of oil/gas workers, who intersperse 4-7 day time off in Fort St. John with 20-28 day shifts in remote work camps, contributed to the spread of STIs, primarily due to high rates of partner change: “[People here] sleep with a lot more people, due to the fact that there’s so many people coming and going. There’s a stereotypical saying in the Northern parts that when the shift of workers go out to work, the girls go and get the shift that are coming back in, and end up sleeping with them. And then, when they go back out, they take the next shift” (Cole, 25 years old). Many women were said to engage in concurrent sexual relationships with oil/gas workers: “a guy has a girlfriend and he goes out to camp for two weeks, so she has another boyfriend who’s on opposite schedules, like he’s in town while the other one’s in camp and vice versa [...] [They’ve] got, you know, two, three, four guys on the go” (James, 23 years old). This was perceived as increasing the likelihood of acquiring an STI, since most of the sexual contact with multiple
partners was said to be ‘unprotected’. Service providers also viewed concurrent relationships as a risk for the spread of STIs: “The inherent problems of that type of work [are that] lots of patients come in who have discordant relationships, out of their usual relationships, with STIs” (Physician).

Many participants described how the influx of workers, who do not identify with Fort St. John as ‘home’, affects attitudes and sexual behaviour. One young worker explained that risk-taking behaviours were higher among workers from another province: “The guys from out East, they tend to have not too much respect for the towns [...] I’ve heard stories of a four-man Newfie crew all having a go with the same girl, in the same night.” (Kyle, 22 years old). Ann, a 21-year old local, explained her frustrations with oil/gas workers’ attitudes: “A lot of workers come here, they’ll sleep with people and they can either catch it [an STI] or spread it, but they’re not going to call that person and tell them, they’re not going to inform anyone of the problem. Because they’re leaving right away, they don’t have any attachment to these people.” In these ways, youth and service providers perceived the influx of workers as eroding a local sense of community, negatively affecting the ways in which people relate socially and sexually.

2.3.2.2 Binge Partying

When oil/gas workers come ‘off shift’, their brief holidays in Fort St. John often involve ‘benders’ or ‘binges’ on alcohol and/or drugs. A local bar culture that promotes ‘hard partying’ was described as a way of ‘blowing off steam’ after a long time ‘in the patch’: “As soon as you come back, you’re gonna blow half your money on one big party. This town is one big snowball of drugs, anger, sexual stuff [laughs]. It’s insane. Rig work just makes it much worse because you’re out in camp for that long and then you got all that
built up, and then you come back to town – and the town is the release” (Derrick, 21 years old). During a typical ‘bender’, young workers, “come back and they go drinking and they look for a girl” (Brody, 16 years old). Youth suggested that the likelihood of acquiring an STI increased dramatically during such ‘hook-ups’: “They’ll buy $2000 worth of shots in a night. And then you’ll be obviously destroyed [a euphemism for very drunk]. Sex at that point, if it happens, where is the protection? Who cares? And my friends, I know they’ve had STDs on numerous occasions, [...] but they’re horny and they end up having sex with that girl because they’re drunk at a bar” (Cole, 25 years old). Health care providers agreed: “Young guys come into town over the weekend with a bunch of cash and blow it on drugs and women [...] it’s not that they’ve had sexual partners that they were in a relationship with, it was just a weekend thing” (Physician).

2.3.2.3 High Levels of Disposable Income

Participants explained that ‘binge’ partying was bolstered by the high incomes available to oil/gas workers: “[My brother] blows $500 in the bar on average. Me and him used to party. One time was a $1000 night and that was just on girls I didn’t even know!” (Jared, 25 years old). The importance of material resources (e.g., income, trucks, housing) in determining sexual relationships between men and local women was frequently discussed. In Fort St. John, young women typically ‘date’ men with higher incomes – implicitly providing access to resources, usually an unspoken arrangement. Some youth and service providers attributed these arrangements to the fact that local women (who infrequently work in oil/gas) earn much less than men (e.g., men in Fort St. John earn 2.5 times more than women) (BC Stats, 2006b). In our interviews, these women were frequently stereotyped as ‘gold diggers’: “Gold-digger is the only expression that fits. There’s so much money. [...] [They’ll have]
more than one guy on the go who can lavish you with gifts for the one week he’s in town out
of the month” (James, 23 years old). Some of the young women we interviewed shared these
perceptions and spoke about the implications for sexual behaviour: “It’s a money town... a
lot of girls sleep around here ‘cause it’s like, ‘oh, he has money and a truck and let’s go do
this’” (Kaylee, 21 years old).

2.3.2.4 Gendered Power Dynamics

Many more males than females are in-migrating to Fort St. John to work in the
oil/gas industry. As a result, gendered social relationships appear to be changing in concert
with the ‘boom’. Nowadays, many young women live alone or stay with family while their
partners spend long periods working ‘in the patch’. During this ‘alone time’, participants
described that these women have their choice of a plethora of men: “Here it’s like six to one,
men to women, which means the women get [...] their choice of men here. So that’s why
they have the ability to have children and still go sleep around with other men, because they
know when those men come back, they’ll take them back. ‘Cause they want to live here,
make the money, have the toys, and obviously they’re looking for a companion” (Cole, 25
years old). Many participants viewed these behaviours as problematic, perceiving them as
contributing to the spread of STIs. For example, one young man who had recently moved to
town explained his reaction to his first local girlfriend’s refusal to use condoms: “‘There’s
no need to have protected sex. Condoms take the meaning out of sex’. [Those were] exactly
her words. [...] So, I found out she was cheating on me [with] this big guy who works in the
oil patch and can have any girl. [...]When I got here, it was weird, because most girls I met
don’t use condoms to have sex” (Andrew, 20 years old).
Young women also often described ‘safe’ sex as challenging to negotiate – especially with an older, wealthier sex partner. Some young women explained that they believed that because their sex partners were older and more experienced, they would take the necessary precautions (e.g., got tested for STIs). Many young women described negative, unintended consequences of sexual encounters with “riggers”: “She got drunk and we went to the bar, and then some worker guy I don’t even know, [...] they went home together. She’s still underage [...] She came to me the next day and she asked me to go with her and she got tested” (Rose, 16 years old).

2.4 DISCUSSION

Our findings are indicative of a sexual health crisis that has developed in concert with the ‘boom’. Recent syphilis outbreaks in the region are further testimony to this. Public health officials explained that the infection was quickly spreading beyond traditional higher risk groups, from urban areas to ‘boomtowns’ (Sinemma, 2007). As young people (primarily men) continue to migrate to and within the region, the situation is likely to worsen until action is taken (Elliott et al., 2002). Globally, similar sub-populations (i.e., young, male, migrant workers) and places (i.e., ‘booming’ resource-extraction communities) continue to proliferate and may experience socio-cultural and structural conditions similar to those described in our findings. We recommend interventions for the control of STIs that are tailored and targeted to the needs of young people living in these communities.

It is essential to provide oil/gas workers with STI testing at oil/gas camps. This has been applied in other resource-extraction contexts, demonstrating reductions in STI rates (Steen et al., 2000). Self-testing and/or self-specimen collection may be particularly useful in this geographically and socially isolated population (Cook et al., 2007; Auerswald et al.,
2006). *Condoms* should be made available at oil/gas camps and throughout the city (especially at bars and hotels) and their availability should be widely advertised.

### 2.5 CONCLUSION

In this paper, we investigated how the sexual behaviour of young people is perceived to be affected by rapid and massive social and economic changes in their community. Our findings imply that the conditions created by a resource-extraction ‘boom’ negatively affect youth sexual health in these remote locales. Global, national, and local STI control efforts should consider the realities and needs of similar sub-populations.
2.6 REFERENCES


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3.0 BARRIERS TO STI TESTING AMONG YOUTH IN A CANADIAN OIL/GAS COMMUNITY

3.1 INTRODUCTION

Sexually transmitted infection (STI) rates in Canada are high and on the rise. In the province of British Columbia (BC), Chlamydia rates among youth have doubled since 1997 and exceed the national average (BC Centre for Disease Control, 2005). In particular, young people in remote, rapidly urbanizing resource-extraction communities in Northeastern BC experience disproportionately high and increasing rates of STIs. In 2005, Chlamydia rates among youth ages 15-24 exceeded the provincial average by 22% (1168 per 100,000 in the Northeast compared with the BC average of 955 per 100,000) and represented a 21% increase since 2000.

This region is experiencing massive in-migration of young people (mostly men) who are attracted by jobs in the oil/gas sectors. Oil/gas workers spend long periods of time in remote work camps (Coates, 2001; Bowser, 2006; Harden, 2006), and their brief holidays in adjacent towns are often characterized by binges on alcohol and/or drugs (Brown et al., 2003; Cullen, 2006). The resultant demographic and social disruptions (Freudenberg, 1984; Brown et al., 2005; Langfitt, 2006) pose serious public health problems related to STIs (Health Canada, 2006;)

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4 A version of this chapter has been accepted for publication. Goldenberg S, Shoveller J, Koehoorn M, Ostry A (In Press). Barriers to STI Testing among Youth in a Canadian Oil/Gas Community. Health and Place. Published online December 3, 2007. doi: 10.1016/j.healthplace.2007.11.005
5 Although Chlamydia rates do not provide the best indicator of STIs in many contexts due to their sensitivity to testing practices, the disproportionate increase in Chlamydia rates observed in Northeastern BC is unlikely to be attributable to increased screening and testing. In comparison to the rest of the province, this region has not launched initiatives (e.g., targeted STI testing awareness campaigns) to substantially increase these STI control activities. Additionally, while Chlamydia is often asymptomatic and is most frequently screened for in young women, the ratio of positive tests for males versus females has increased in Northeast BC. In light of this, we suspect that in-migrating males may be disproportionately contributing to the increase (despite the fact that no targeted efforts have been put into place to recruit them for STI testing). Lastly, Gonorrhea rates are relatively uninformative compared to Chlamydia (e.g., under 10 Gonorrhea cases per year among youth in Northeastern BC are detected, likely due to few tests being performed). Given this information, we suggest that it is appropriate to use Chlamydia rates as opposed to rates of other STIs (e.g., Gonorrhea).
6 Data provided by the Division of STI/HIV Prevention and Control, British Columbia Centre for Disease Control (2006).
Evidence from oil/gas and mining communities in developing countries (Desmond et al., 2005; Steen et al., 2000, Palmer et al., 2002; Campbell and Williams, 1999; Clift et al., 2003; Meekers, 2000) also substantiates the need to address STIs in resource-extraction communities.

A strong public health impetus exists to address the STI epidemic by providing access to STI testing for young people in resource-extraction communities. STIs are largely preventable and treatable, and testing is an effective means of reducing the disease burden (Miller, 2005; Patrick, 1997). Undetected and/or untreated, STIs pose serious health consequences, including pelvic inflammatory disease, infertility, and ectopic pregnancy. Moreover, STIs are synergistic, in that acquiring one increases the risk of others, including HIV. Consequently, detection and treatment contribute to prevention. Transient populations that experience high rates of STIs, concurrent relationships, and partner change represent vectors that can spread STIs to the broader population (Wasserheit and Aral, 1996; Elliott et al., 2002; Potterat et al., 2002; Potterat et al., 1999; Rothenberg et al., 2005). While targeting STI testing and prevention resources at this population is expected to have a disproportionately large impact on STI prevention (Elliott et al., 2002; Jolly and Wylie, 2002; Potterat et al., 2002), previous research in remote communities suggests that youth often experience significant barriers to accessing sexual health services as a result of socio-cultural and structural conditions in their community (Shoveller et al., 2007; Shoveller and Johnson, 2006; Shoveller et al., 2004, Langille et al., 2001; Bendall et al., 2007).

3.1.1 Barriers to STI Testing

Stigma, shame, and social discomfort have been identified as barriers to STI testing (Fortenberry et al., 2002; Scoular et al., 2001; Evans et al., 2002; Uuskula et al., 2006; Merzel et al., 2004; McKay, 2006; Cunningham et al., 2002; Gotz et al., 2005), as have young people’s
concerns about anonymity and confidentiality (Ackard and Neumark-Sztainer, 2001; Klein and Wilson, 2002; Bethell et al., 2001; Blake et al., 2003; Nwokolo et al., 2002). Limited access to information (e.g., about symptoms, testing and treatment procedures) also poses barriers (Evans et al., 2002; Tilson et al., 2004, Uuskula et al., 2006), especially the lack of age-and place-appropriate information (e.g., locations of youth clinics are not always well advertised) (DiCenso et al., 2001; Fortenberry et al., 2001). Characteristics of health service delivery systems can also inhibit testing. These include inconvenient hours of operation of clinics and long waiting times (Uuskula et al., 2006; Moses and Elliott, 2002; Nwokolo et al., 2002; Tilson et al., 2004), gender of health care providers (Langille et al., 2001; Kapphahn et al., 1999), and clinic location, including issues associated with transportation (Evans et al., 2002; Fortenberry and Zimet, 1999). Judgmental behaviour of health care providers and inadequate training in sexual health service provision (e.g., difficulties in taking sexual histories, low awareness of STI prevalence, unfamiliarity with urine-based testing) have also been cited as barriers (McKay, 2006; Langille and Rigby, 2006; Nwokolo et al., 2002; Shafer et al., 2002; McNulty et al., 2004).

Although a substantial body of literature regarding barriers to STI testing exists, most previous research pertains to urban youth, typically recruited from STI clinics (Fortenberry, 1997; Scoular et al., 2001). Authors have emphasized the need to evaluate barriers to STI services in the wider population (Tilson et al., 2004). Moreover, the relevance of these barriers to youth living in remote, rapidly urbanizing resource-extraction communities (such as those in Northeastern BC) is unknown. Evidence indicates the importance of social context and structural factors as determinants of young people’s utilization of sexual health services (Shoveller et al., 2004; Gunatilake, 1998; Rhodes et al., 1996; Waldo and Coates, 2000). To the best of our knowledge, no other research has explored STI testing for young people in North American resource-extraction communities.
3.1.2 Research Objectives

The current study aimed to: (1) document young people’s experiences with STI testing in an oil/gas community; (2) gather service providers’ perspectives on local sexual health service delivery; and (3) develop recommendations to improve the accessibility of STI testing in North American resource-extraction communities.

3.2 METHODS

3.2.1 Study Setting

The study was conducted in Fort St. John (FSJ) (pop: 17,402), which is located in Northeastern British Columbia (BC), Canada. This remote city is located 1,237 kilometers from Vancouver (BC’s largest city). It is the centre of BC’s oil/gas industry. Built as a trading post for the fur industry, the construction of transportation infrastructure and the discovery of oil in the region in 1951 set the city in a favorable position for trading with distant markets. Today, FSJ is the largest city in Northeastern BC and serves a regional population of 69,245 (BC Stats, 2005). Religious affiliations are similar to those across BC, with 20% of residents identifying as Catholic; 35% as Protestant; and 35% identifying with no religious affiliation. Approximately 11% of the population identify as Aboriginal (compared to 4% across BC).

Since 2001, the city has been experiencing an economic boom in the natural gas sector. The local and regional economy is highly dependent on oil, gas, and mining, as indicated by an income dependency of 32% on these sectors (BC Stats, 2006). Rapid economic expansion has boosted median family income 15% above the provincial median (BC Stats, 2006). Real estate prices have increased drastically and young people often experience difficulties in finding affordable housing (City Spaces Consulting, 2007; CanWest News Services, 2007). Employers
in the oil/gas sectors lodge workers (e.g., drillers, pipeliners) for 20-28 day shifts in camps located several hours’ driving distance from town. Workers travel to urban centres (mainly FSJ) on their time off. Despite its rapid urbanization, the city maintains a mix of locals and newcomers; its social fabric features elements of urbanity (e.g., fast pace of life, potential for high earnings, growing presence of multinationals) mixed with rurality (e.g., remoteness, lack of anonymity).

FSJ’s population has grown 8.4% from 2001 to 2006 (Statistics Canada, 2007). In particular, the population aged 15-29 has grown at three times the provincial rate (BC Stats, 2006). The male-dominated nature of the oil/gas industries is reflected by a male-biased sex ratio (e.g., 107.2 males per 100 females, compared with 98.3 across BC) (BC Stats, 2006). Upon migration to FSJ, many young people experience important transitions into adulthood (e.g., entry into the full-time workforce; earning unprecedented wages; living away from friends and family) (Freudenberg, 1984). Since the boom, rates of STIs such as Chlamydia have been 2-3 times higher than the provincial average. In 2005, among youth in FSJ ages 15-24, there were 2014 cases per 100,000 compared with the BC average of 955 per 100,000. Among the general population, Chlamydia rates by gender (632 per 100,000 females compared with 353 per 100,000 males), although in part likely an artifact of the low probability of testing among males, suggest that increasing rates of STIs extend beyond the population of transient oil/gas workers.

### 3.2.2 Data Collection and Analysis

Ethics approval was obtained from the University of British Columbia (UBC) and the local health authority. The study was informed by ethnographic research techniques (Fetterman, 1998; Wolcott, 1999). Data were collected by a trained interviewer (SG) during 8 weeks of periodic fieldwork that included participant observation and in-depth interviews with 25 youth
and 14 health and social service providers. Field trips (3-10 days per trip) encompassed all seasons, in an attempt to capture seasonal barriers to STI testing (e.g., related to transportation) as well as the seasonal nature of industry-based migration.

Fieldwork included observations and informal conversations with young people, service providers, and other adults (e.g., business owners, taxi drivers, police). It also included attending functions that were relevant to sexual health services (e.g., parent meetings on sex education; public health meetings) and spending time at youth hangouts (e.g., youth centre, coffee shops). Data collected during fieldwork helped contextualize the information gathered during in-depth interviews. Fieldwork provided opportunities to recruit youth and service providers for interviews, as did posters at clinics, youth centers, restaurants, coffee shops, gyms, community centers, and community agencies. Eligibility criteria for youth interviews were: 15-25 years old, English speaking, and self-identified as sexually active. Eligible service providers were employed as health or social service providers in the community. Participants were purposively selected to capture a diverse range of experiences with STI testing (Strauss and Corbin, 1998). We interviewed youth of different ages, ethnicities, occupations (e.g., students, oil/gas workers, stay-home mothers), testing status (tested for STIs/never tested for STIs), and relationship status. Service providers who worked with youth in a variety of capacities were interviewed, including those who provided STI testing (e.g., nurses, physicians) and those who did not (e.g., social workers).

On average, each interview took 1 hour and each youth received a $25 honorarium. Interviews were semi-structured and consisted of open-ended questions, which were modified to pursue emergent concepts as data collection and analysis progressed (Glaser, 1978). In this way, data collection and analysis advanced in an iterative fashion, with early interviews and analysis informing future decisions on sampling and interview questions. Youth were asked to describe their experiences seeking and/or accessing testing services. Service providers were asked about
their perspectives on sexual health service delivery characteristics and, if applicable, their experiences providing STI testing to youth. Questions were posed to gather perspectives on how socio-cultural and structural conditions (e.g., social norms; privacy; hours of operation; availability of testing services; transportation) constrain or facilitate youth’s access to STI testing. Participants completed a brief socio-demographic survey that was used to describe the general characteristics of the sample.

Follow-up interviews were conducted with a sub-sample of youth (n=5) which provided an opportunity for participants to reflect on relevant issues and to clarify and/or add to their stories regarding concepts that emerged during initial interviews and fieldwork. SG followed up with service providers, gathering their feedback on the interim results and collaborating to develop recommendations for intervention. As well, SG engaged in informal follow-up interviews by discussing emergent findings with other community members (e.g., taxi drivers, community organizations).

Interview recordings were transcribed and personal identifiers were removed from the transcripts. Interview transcripts were checked for accuracy against original audiotapes. The software QSR NVivo was used to manage data coding, which was led by SG. During the analysis, an audit trail was kept to document how and why analytic decisions were made. The analysis was conducted by reading through transcripts and field notes to develop a set of codes that organized and described the structure of the data. As data collection and writing progressed, the data were analyzed to understand the ways in which socio-cultural and structural features of place are perceived to affect young people’s access to STI testing in FSJ.
3.3 RESULTS

3.3.1 Sample Characteristics

Fifty two percent (n=13) of youth participants were female, and their average age was 20 years. A mix of newcomers and locals participated; but, on average, youth had spent 8 years in the community. Fifty six percent identified their ethnicity as White (n=14) and 40% as Aboriginal (n=10). Sixty percent (n=15) of youth were students, many of whom worked part-time. A third (32%, n=8) of youth participants had worked in the oil/gas industry; 16% (n=4) identified as currently employed in the service sector, 12% (n=3) as stay-home mothers, and 8% (n=2) as education providers. Forty eight percent (n=12) lived with their families, 24%, (n=6) with friends, and 16% (n=4) with others (e.g., university residence, work camps). Twelve percent (n=3) lived with a partner. Most (72%, n=18) had been tested for STIs, almost half of whom were men (44%, n=8). On average, youth participants had been tested 4 times. Thirty six percent (n=9) of participants were recruited from the local college campus, 32% from the youth centre (n=8), 16% (n=4) from a community organization, and 16% (n=4) from other locations (i.e., medical clinic, gym, coffee shop).

Ten health care workers were interviewed: 4 public health staff, and 6 medical clinic staff. Four social service providers employed at youth organizations also participated. Most providers were female (71%, n=10) and White (78%, n=11). The mean age of service providers was 44 years and they had spent an average of 14 years in FSJ. Service providers were recruited through their places of work (i.e., public health, medical clinics).
3.3.2 STI Testing Among Youth in Fort St. John

Study participants identified 5 key socio-cultural and structural barriers to STI testing for youth in FSJ: limited opportunities for youth to access STI testing; geographic inaccessibility of clinics; local social norms; lack of information regarding STIs and testing options; and negative interactions with service providers.

3.3.2.1 Limited opportunities for youth to access STI testing

STI testing is provided through 3 venues in FSJ: the public health unit, 3 walk-in medical clinics, and the hospital emergency room. STI testing is available through public health during four appointments per week (during school hours), although few youth use this service. Public health staff expressed concerns regarding expanding services due to staff shortages. Most youth participants had never heard of the STI testing services offered through the public health unit and/or were unfamiliar with its location. The health unit is located in a high-income area, far from downtown and other services. No drop-in appointments are available, and staff reported often being booked up for weeks in advance. Many youth described the lack of a drop-in service as a substantial barrier to testing, explaining that in many cases they have an urgent need for STI testing (e.g., when symptoms appear; the morning after a high-risk sexual encounter).

Instead, most youth use walk-in medical clinics for STI testing. Clinics are conveniently located in the downtown core. However, hours of operation pose barriers to access, as these clinics also operate during school hours and shut down during lunch. Youth employed as oil/gas workers explained the difficulties in taking time off work to get tested during these hours. Walk-ins involve lengthy waits in a crowded waiting room and brief appointments. Clinics are staffed almost entirely by male physicians, which was perceived as a barrier to testing by many young
women who preferred a female provider. Most youth who participated did not have a family physician, and among those who did, many had privacy concerns related to seeking out sexual health services from them. As well, participants discussed dependence on walk-in medical clinics as a barrier to getting tested for STIs, since the clinical interactions they had experienced within these settings did not involve the time necessary to develop a trusting relationship with their health care providers. For example, 23-year old James explained: “Well, it just seemed like he doesn’t really care. But that’s part of the problem with a walk-in clinic: they don’t form a relationship with the people at all, so it’s basically just dollars and cents to them.”

3.3.2.2 Geographic inaccessibility of clinics

Employees – mostly males – involved in the oil/gas industry typically spend 20-28 days in remote oil/gas camps. Workdays are long, with just enough time to eat and sleep before the next workday begins. No STI testing is available at oil/gas sites, although youth and service providers strongly felt that there is a need for it. As one worker explained, he had wanted to get tested for STIs after a sexual encounter with a woman he had met in a bar; but, he had to return to camp before he could access testing: “You’re living out in camp, you come to town and you’ve got maybe three hours to do stuff - cause you gotta be back by curfew and...yeah, if you gotta sit in the hospital for four hours just to get tested, most guys I know would just be like, ‘Fuck it’” (Kyle, 22 years old). Workers explained that taking the day off work to drive to town for an STI test would mean losing a day’s pay and could involve risking one’s job. In addition, we learned that many young oil/gas workers lack access to their own transportation.

Participants also described geographic barriers to testing for youth living in town, particularly transportation to clinics. Public transit is limited, involving long waits in cold weather – consequently few youth used public transportation. Most described depending on
others for transportation, which - particularly among teens concerned about privacy - created an additional barrier to getting tested. For example, a college student living in university residence cited her lack of transportation as a main reason for not getting tested for STIs. She described herself as relying entirely on friends and family for rides.

Service providers perceived significant geographic barriers to testing as well, as the following quote regarding the location of the public health unit illustrates: “They’d have to walk three or four miles. A cab ride is $15 one-way from where they live on the other side of town. They don’t have that kind of money. It’s not even downtown, it’s a little hike up. Especially when it’s 30 below. And the teens just aren’t going to be going by there” (Social service provider).

3.3.2.3 Local social norms

Overall, youth perceived STI testing as a highly stigmatized behaviour that is further marginalised through local social norms. Youth described being exposed to a plethora of place-based stereotypes related to ‘rigger’ culture (e.g., hyper-masculinity, sexism, apathy towards self-care). One participant described how the dominant attitudes of riggers pose barriers to STI testing: “There are a lot of guys who are riggers and they’re here for six months, or three weeks, and then they’re gone. Who knows where they’ve been? I’m sure with a lifestyle like that, they don’t take time to be like, I should go and get myself checked, right? Especially with the mentality that’s forced among a lot of these guys - it’s not cool to be weak at all. So, to have to go and test for STDs is not a merit badge you want to wear” (Joel, 24 years old).

Local women were frequently stereotyped in ways that may inhibit testing. For example, male participants frequently referred to them as ‘nasty’, ‘sluts’, ‘campies’, or ‘questionable’ based on their dress or sexual reputations. Young women were also concerned about being negatively labeled as a result of being seen accessing STI testing: “In smaller towns, you get
labeled fast. [...] If it’s out in the open, they’d be like, ‘Oh, you have this! Blah, blah, blah, you’re a slut’” (Shaylene, 16 years old). Shaylene reckoned that if youth were able to privately access information and testing, they would be less afraid of being labeled by their peers and the community-at-large.

The social mores that young people in our study are exposed to tend to create unrealistic and unhelpful expectations about the ways in which young women and young men should behave sexually, which in turn potentially affects their experiences with STI testing, as illustrated during an interview with a local service provider who said: “One [young] guy comes in [to our clinic] every seven or eight months [to get tested]. [Another staff member] said to me that, ‘Man, he must be leading a really crazy life’. [...] There is a mentality that only ‘those kind of people’ are coming in for testing.” (Health care provider). Many youth feared the spectre of being stereotyped and judged by health care providers during STI testing appointments, including one young woman who explained that the main reason she avoided testing was because she feared the response of her service provider upon disclosing the number of sexual partners she had had.

3.3.2.4 Lack of information about STIs and testing options

Youth cited a lack of information about STIs as a barrier to testing, illustrating how this perpetuates silence around sexual health issues and increases taboos associated with testing. Participants frequently discussed the invisibility of STI testing services in FSJ: “You never hear of any advertisements for testing or anything like that, so [...] if you don’t hear about it then it’s out of your mind” (Kaylee, 21 years old). Some youth consulted friends, family, and/or media sources for information about symptoms, risks, testing, and treatment, but highlighted the challenges in acquiring such knowledge in a place where very few opportunities exist for young
people to openly ask questions about sexuality and sexual health. Overall, youth and service providers described the local context of sexual health service provision as one which youth were expected to take the initiative to seek out information about STIs and testing options.

Young men and women wanted to receive more information about STIs and testing and treatment procedures (e.g., that common bacterial STIs can be cured with free antibiotics), which they said would facilitate testing. For example, Brody, a 15-year old participant, explained: “If you have more information, it does make it easier, like, if you know it’s not that bad to go and get yourself checked out, it’s not that bad to have the treatment for the symptoms.”

Youth stressed the need to increase the availability of information about STIs and local testing options which could be accessed in privacy. For example, some youth who had been recruited from the local youth centre noted the provision of free condoms and STI information in the centre’s washrooms was an effective means of raising awareness and facilitating discussions with centre staff about testing. Service providers also recognized youth’s needs for more information about STIs and testing options and suggested that increased outreach activities would reduce some of these barriers.

We were told that oil/gas workplaces are particularly devoid of sexual health information. Moreover, young workers highlighted how this reinforced the idea that STIs should not be discussed openly: “It’s not a popular topic of conversation [on the rigs]. It’s just not something you’d talk about, so if you don’t really talk about it, it’s not really on your mind and [you] don’t really see posters or anything” (Kyle, 22 years old). Young men explained that they did not know where they could go to access testing and did not feel comfortable consulting others for such information, something they described as a widespread concern among people in FSJ and surrounding oil/gas camps.
3.3.2.5 Negative interactions with service providers

Service providers and youth indicated that the current models of service provision did not facilitate the establishment of rapport and often shut down opportunities for youth to ask questions and/or develop skills related to STI prevention. For example, one teenager described an occasion where she had accompanied a friend for testing after a sexual encounter with an oil/gas worker: “They [the health care providers] printed off this piece of paper and then we looked at it. They just kind of pushed us away and we had to go. They didn’t - they didn’t talk about STDs or anything” (Rose, 16 years old). Another participant also described how interactions with clinicians can pose barriers: “I felt like she [the nurse] was almost judging me. Like, you need an STD test? If you were a moral person, you wouldn’t need one. […] This is the attitude I felt from her. She didn’t make eye contact with me, there was no ‘walk me through’ anything. I was scared and I didn’t feel that she helped me at all” (Joel, 24 years old). Shame and embarrassment were widely perceived to decrease the likelihood that youth would return for testing or would recommend STI testing to their friends. In a community with limited STI testing options, negative interactions with clinicians (even a few) present a serious concern.

Health care providers’ perceptions about the quality and impact of clinical interactions with youth varied. Some argued that youth had all the information that they needed regarding STIs and testing (e.g., through the schools, internet). Their descriptions of clinical interactions for STI testing also were found to vary widely. For example, a local health care provider commented: “It depends on what you’re capable or willing to do, or the time that they’re [physicians] willing to spend. A lot of physicians, there would just not be a lot of time to get the counseling through. Also, most of the time you expect the patients [to have information]. It’s not like they’re in a Third World country where information is not available. Everyone is educated and information is widely available. We can only do so much for them.”
Another health care provider described her frustrations regarding what she perceived to be youth’s disinterest in protecting their sexual health: “The young people down here, they don’t seem to care. Some get an STD [and think], “Oh well, it’s no big deal.” Some of them come in at least three times a year to get tested, which is crazy. It’s very expensive. Takes a lot of everybody’s time. You’ll see, ‘Oh, they were tested two months ago. Why are they in here doing this now again?’ There are ways to prevent this, you know.”

A few youth discussed service providers’ refusals to provide testing upon request. One young man reported: “I actually went to him [my doctor] and told him I needed it [STI testing]. [...] I wanted to get tested, but he told me to pull my pants up [laughs] and he’s not doing it” (Cole, 25 years old). Service providers also described similar situations. For example, one provider described an occasion where a young man presented at the hospital emergency room with a severe case of herpes. He was told that he had an STI, but was sent away, without receiving testing or treatment. Instead, he was advised to make an appointment at public health.

3.4 DISCUSSION

In this paper, we documented 5 key barriers to STI testing for youth in a Canadian resource-extraction community. Our data are consistent with previous research on barriers to STI testing experienced by youth (e.g., hours of operation, privacy, stigma, negative interactions with service providers are common concerns). However, they address an important gap in our understanding of how these barriers may be exacerbated or mitigated by place, by illustrating how circumstances in a remote, rapidly urbanizing resource-extraction community tend to exacerbate them.

**Barriers for oil/gas workers:** Inconveniently located clinics with limited hours of operation are commonly cited barriers by youth in other places. However, long periods of time
spent in the oil patch and substantial distances between oil/gas camps and STI testing facilities illustrate how the barriers faced by these youth are likely to be more pronounced than those experienced by their southern, urban counterparts. Evidence suggests that STI testing and treatment aimed at transient populations that experience high rates of STIs, concurrent relationships, and partner change (e.g., oil/gas workers) may have the greatest effect on reducing STI prevalence (Elliott et al., 2002; Jolly and Wylie, 2002; Steen et al., 2000). However, circumstances in FSJ imply severely limited access to STI testing and prevention resources for oil/gas workers. While some resource-extraction companies (e.g., Total Oil, 2007; Chevron Corporation, 2005) provide such resources to their workers in other parts of the world (e.g., sub-Saharan Africa, South East Asia, South America), we are unaware of such initiatives in North America.

**Barriers for youth living in town:** While youth in other communities commonly experience barriers related to social norms (e.g., stigma and embarrassment), our data suggest that those at play in resource-extraction communities like FSJ may be more difficult to overcome. For example, privacy concerns pose barriers which were described as insurmountable due to the small size and remote location of FSJ. Additionally, cold weather, lack of transportation, and clinic hours of operation (other features of place) exacerbate barriers for youth living in FSJ. Walk-in and evening/weekend STI testing services have been frequently cited as overcoming barriers to STI testing related to hours of operation (Nwokolo et al., 2002; Scoular et al., 2001; Tilson et al., 2004). Self-testing and/or self-specimen collection represent promising testing options for geographically and socially marginalized populations (Cook et al., 2007; Auserwald et al., 2006; Lippman et al., 2007).

**Barriers related to negative interactions with health care providers:** Unfortunately, studies have shown that primary care providers in many places feel poorly trained to comfortably obtain sexual histories from youth who may be seeking STI testing (Langille et al., 2001; Shafer
et al., 2002). In particular, physicians in rural and remote BC have reported that they lack sufficient information on STI/HIV risk and prevention (Hansen et al., 2005). These challenges appear to be amplified by the resource-extraction industries in FSJ. For example, the health care system in Northeastern BC has been overwhelmed by the demographic changes associated with the influx of transient workers (i.e., staff shortages are common in clinics and health departments; effective STI contact tracing is hindered by the transient nature of many clients). It is also likely that the same social norms that pose barriers to STI testing for youth may inhibit some health care providers from broaching the subject with young clients. Service providers who feel trained to address the sexual health needs of the youth they serve (e.g., non-judgmental, assure confidentiality, provide opportunities for youth to openly ask questions) have been shown to improve young people’s likelihood to present and/or return for STI testing (Uuskula et al., 2006; Brindis et al., 2005; Worthington and Myers, 2002).

Given the extent of the barriers to STI testing documented in this study, current STI surveillance rates likely represent an underestimate of the propagation of STIs in Northeastern BC, since youth (especially male oil/gas workers) are even more unlikely than in other places to be tested for STIs. These findings provide evidence suggesting that place-based barriers must be incorporated into public health service delivery.

### 3.4.1 Corresponding Actions

Current service delivery models require youth to overcome several barriers to seek out STI testing and preventative resources. Since young people often experience difficulties doing this, we suggest that an active model of service delivery could benefit youth, especially those who live in resource-extraction communities. These types of interventions could have significant public health benefit in light of the rapidly expanding urban populations linked to resource-
extraction ‘boomtowns’ across North America (e.g., Fort. McMurray, Alberta; Sublette County, Wyoming) (Langfitt, 2007; Harden, 2006).

*Inter-sectoral partnerships* represent a means of bolstering local capacities to provide health services that meet the needs of young people in under-resourced communities. In Northeastern BC, public health has recently partnered with a non-profit sexual health organization to jointly provide sexual health services for local youth. This initiative aims to facilitate the delivery of youth-friendly sexual health services using existing infrastructure by providing instructional resources, updated sexual health information, professional development training, and contraceptive products. Oil/gas companies also represent opportunities to build local health services. In other nations, they have partnered with non-profit organizations and public health to provide services such as STI/HIV testing and treatment, community health clinics, STI awareness campaigns, and condom distribution.

Through these partnerships, *outreach to oil/gas workers* should be launched by providing information, testing, and free condoms at oil/gas camps. We recommend that a *public awareness campaign* be launched to promote sexual health, reduce stigma, and increase the availability of information. This would include the use of local media and community organizations to promote local testing options, and the training of youth to provide public education and peer-to-peer outreach. As well, we recommend increased *hours of operation* and the provision of *walk-in services* at clinics offering STI testing, especially on the evenings and weekends. *Free condoms* must also be made much more accessible by increasing their distribution (e.g., they should be advertised and made available through as many places as possible, including schools, community organizations, night clubs). Facilitating STI testing and prevention must *support local service providers* to address the barriers that pertain to clinical interactions with youth. To do so, we recommend that youth-oriented sexual health service delivery training be offered to local health care providers.
3.4.2 Strengths and Limitations

The purpose of this study was not to generalize the findings to a larger population, but to elicit insights to develop action that is sensitive to local circumstances. Self-reported data in epidemiology are often cited as vulnerable to recall and reporting biases. However, the insights of youth and their providers are precisely what we were interested in. Since these are not easily uncovered by traditional epidemiological methods, we used participant observation and in-depth interviews to gather the perspectives of youth and service providers. This enabled SG to develop trusting relationships with participants over time and to obtain insights about local realities (e.g., SG gained a good understanding of the workings of the local public health system by participating in sexual health planning meetings).

Some key aspects of the demographic composition of our sample should be understood in interpreting our results. Firstly, the self-reported testing rate among youth participants (72% were tested for STIs) is higher than what would be expected among 15-25 year olds in FSJ. Although we made many efforts to recruit them, youth facing common barriers to STI testing (i.e., stigma, embarrassment) may have been less likely to participate in our study. Thus, barriers to STI testing among the general population of youth are likely to be more pronounced than our findings describe, representing an even greater impetus for action. Secondly, a higher proportion of Aboriginal youth (40%) participated than is reflected in the general population (11%). However, the barriers to STI testing that they described closely echoed the concerns of non-Aboriginal youth participants, suggesting that our findings resonate with Aboriginal and non-Aboriginal populations.

During data collection, SG’s presence in the community provided a catalyst for discussions among service providers (e.g., by instigating debate within a community organization about whether they should provide condoms to youth). As well, the ways in which
she was perceived by participants shaped the data. As a young woman herself, by incorporating de-stigmatizing information (e.g., that the majority of young women are exposed to HPV) into the discussion and providing opportunities to ask questions before/after the interview, SG attempted to create an open and reciprocal interview environment. The rich and detailed stories gathered suggest that using such techniques enabled us to tap into deeper insights than would have been documented using traditional methods.

Our analysis is based on interpretations of data. To address this, we kept an audit trail documenting data analysis; completed follow-up interviews; sought analytic consensus among the research team; and compared our data with previous and ongoing research on STI testing among youth in other locations. Lastly, this study does not aim to produce a classical ethnography, which typically involves extended fieldwork periods of months to years (Wolcott, 1999). Our modified approach enabled us to engage with a community given the limitations of available resources (Fetterman, 1998).

3.5 CONCLUSION

Little is known about youth’s access to STI testing in remote, resource-extraction communities, where the need for testing is high. In this study, we documented youth’s perspectives on socio-cultural and structural barriers to STI testing in an oil/gas community and elicited health/social service providers’ perspectives on characteristics of local sexual health services. We also developed recommendations to improve the accessibility of STI testing in this context. Study participants identified 5 key socio-cultural and structural barriers to STI testing for youth in this context: limited opportunities to access testing; geographic inaccessibility of clinics; local social norms; lack of information; and negative interactions with service providers. To address the needs of youth, we recommend STI prevention and testing service delivery
models that incorporate a locally tailored public awareness campaign, outreach to oil/gas
workers, condom distribution, expanded clinic hours and drop-in STI testing, specialized training
for health care providers, and inter-sectoral partnerships between public health, non-profit
organizations, and industry.
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4.0 DISCUSSION

4.1 DISCUSSION

This thesis demonstrated how features of a Canadian resource-extraction community are perceived to negatively affect the sexual health of the young people who live and work there. Findings were presented on socio-cultural and structural features of FSJ, an oil/gas community in Northeastern BC, that are perceived by youth and their service providers to negatively affect sexual behaviour and pose barriers to accessing STI testing services.

4.1.1 Sexual Behaviour among Youth in a ‘Boomtown’

Chapter 2, ‘Sexual Behaviour and STI Prevention among Youth in a Boomtown: the Need for Innovative Approaches to STI Control’, examined features of socio-cultural context and structural factors associated with the oil/gas ‘boom’ that are perceived by youth and their service providers to affect sexual behaviour. Study participants identified the mobility of the oil/gas workforce, ‘binge’ partying, high levels of disposable income, and gendered power dynamics as key socio-cultural and structural conditions that affect youth sexual behaviour and promote the spread of STIs. Based on the findings, recommendations for STI prevention and testing interventions included the provision of STI testing at oil/gas camps, a locally tailored public awareness campaign, and the distribution of condoms.

The findings identify and describe a previously unidentified STI ‘core group’ – young people who live and work in ‘booming’ resource-extraction communities such as those found in Northeastern BC. Evidence indicates that targeting STI prevention and testing interventions to ‘core groups’ at risk of STIs may have a disproportionately large impact on STI control (Potterat
et al., 2002; Jolly and Wylie, 2002). Globally and across North America, similar sub-populations (e.g., young, primarily male, transient) and places (e.g., rapidly urbanizing, resource-extraction communities) have been identified as experiencing socio-cultural and structural conditions similar to those described in our findings (e.g., ‘binge’ partying; high levels of disposable income; transience; gendered power dynamics) (Smith, 2005; Bowser, 2006; Harden, 2006; Cullen, 2006; Health Canada, 2006; Sharpe-Staples, 2006; Harding, 2007; Freudenberg, 1984; Brown et al., 2003; Langfitt, 2006; Meekers, 2000; Desmond et al., 2005; Steen et al., 2000; Palmer et al., 2002; Clift et al., 2003; Brockerhoff and Biddlecom, 1999). Where this is the case, ‘core groups’ of sexually active young people in these communities represent important targets for STI testing and prevention efforts.

While sexual behaviour associated with such conditions may provide part of the explanation for the high and increasing STI rates observed among youth in BC’s Northeast, access to STI testing and treatment are also important determinants of STI transmission dynamics. Furthermore, while attempts to achieve long-term changes in sexual behaviour or reductions in STI rates through behavioural interventions at the individual-level have been somewhat disappointing, interventions related to testing and treatment of STIs have shown more success (Golden and Manhart, 2005). Thus, the factors that may promote or inhibit young people’s access to STI testing represent key targets for intervention that are amenable to change.

4.1.2 Access to STI Testing Services for Youth in a ‘Boomtown’

Chapter 3, ‘Barriers to STI Testing among Youth in an Oil/Gas Community’, described youth’s experiences with STI testing, as well as gathered service providers’ perspectives on features of local sexual health service delivery. Youth and service providers identified key socio-
cultural and structural barriers to STI testing for youth in FSJ: limited opportunities for youth to access STI testing; geographic inaccessibility of clinics; local social norms; lack of information regarding STIs and testing options; and negative interactions with service providers. Based on the findings, recommendations included STI testing and awareness service delivery models that incorporate a locally tailored public awareness campaign, outreach to oil/gas workers, condom distribution, expanded clinic hours and drop-in STI testing, specialized training for health care providers, and intersectoral partnerships between public health, non-profit organizations, and industry. While the importance of targeting STI testing and treatment to this population has already been emphasized, the circumstances documented in FSJ unfortunately imply severely limited access to such resources.

Although previous research has documented similar barriers to STI testing among youth recruited from clinical settings, the findings in the current study are unique in that they demonstrate how these barriers may be exacerbated (or potentially mitigated) by features of place. This points a way forward for research on youth sexual health disparities, depicting how sexual health (and indeed other) inequalities result from more complex factors than the lack of availability of health care (a popular subject of study in rural and remote Canadian communities). In addition to increasing the availability of sexual health services, interventions to improve the sexual health of young people in remote places should also incorporate the socio-cultural and structural features of communities and of youth’s lives to ensure access to services.

As well, the findings suggest that conventional applications of health services utilization models may not always sufficiently account for the role of social and structural features of place in facilitating or inhibiting access to health services such as STI testing. For example, the Behavioural Model of Health Services Use (Andersen, 1995) has been extensively relied upon to explain access to health services. The conceptual model considers
predisposing factors (e.g., age, gender, marital status), enabling factors (e.g., education, income, social support), and need (e.g., symptoms) that determine access to health services. While this model has been critiqued and subsequently applied by some authors in ways that broaden its scope to include socio-cultural and structural factors, its typical applications unfortunately fail to account for many of the features of place suggested as central in the current thesis. For example, the model has been used to investigate access to HIV medical care in the United States (Anthony et al., 2007) as well as rural versus urban access to home care in Canada (Forbes and Janzen, 2004). While both studies found features such as gender, ethnicity, and income to be important determinants of access, neither considered wider social and structural features (e.g., social norms, geographic access within communities, gendered power dynamics, community economic conditions) that may affect access. In light of findings presented in the current thesis, it is suggested that conceptualizations of access to health services such as STI testing be considered within a wider socio-cultural and structural context.

4.1.3 Interpretation of Findings and Reflexivity

In interpreting the results of this modified ethnographic approach to data collection, my role as a field researcher should be considered. During data collection, my presence provided a catalyst for discussions among service providers regarding issues such as sexuality, STIs, and the health care system. For example, the presentation of my interim results at a community organization instigated a debate regarding whether condoms should be provided to youth in this setting. In this instance, a service provider admitted that my presence had caused her to re-think her own assumptions regarding youth sexual behaviour in FSJ. Similar conversations and transformative experiences with local adults and youth were common and may be interpreted as
representing a first step in breaking down some of the local social norms that were reported as reinforcing embarrassment and stigma related to STI testing and sexual behaviour. For example, some youth who participated in follow-up interviews explained that as a result of their participation, they initiated conversations regarding sexual health with their friends that otherwise would not have occurred. As well, my ongoing process of data collection/analysis and knowledge translation enabled some local providers to incorporate emergent findings into service delivery during the course of the study. For example, by presenting my interim findings at public health planning meetings, public health providers were made aware of youth’s experiences with STI testing (e.g., negative clinical interactions; hours of operation) early on, and attempted to address these considerations in their ongoing clinical interactions and service delivery restructuring.

During my fieldwork, however, I do not believe that I was able to adequately engage some highly vulnerable groups of young people (e.g., sex workers; queer youth). Some of the venues where these populations are concentrated were deemed unsafe and/or unsuitable for recruitment for a number of reasons (e.g., sex workers in FSJ are mostly concentrated in strip clubs, reportedly tied to organized crime). As well, other youth who faced the most serious barriers to accessing STI testing and prevention services (e.g., those who may have been too worried about being stigmatized to participate in an interview regarding sexuality) may not have been adequately represented in the data. For example, many young women who received information about the study (e.g., a recruitment pamphlet) appeared to be very worried that they would be seen talking to me or reading such a pamphlet, and were consequently unable to consider participating in this study. Based on the sample I was able to interview for this study, the sexual behaviours and barriers to STI testing experienced by the general population of youth are likely to be even more problematic than these findings describe.
As well, the ways that I was perceived by participants shaped the data. As a young woman, I would sometimes incorporate de-stigmatizing information (e.g., that the majority of young women are exposed to HPV) into conversations with other young women to create a non-judgemental environment. Also, by providing opportunities for youth and service providers to ask questions before and after the interview, I tried to create an open and reciprocal interview environment. Although I was initially concerned about being perceived as an outsider who was coming into the community with my own research agenda, this was not the case. Instead, my identity as an outsider appeared to facilitate data collection, since many participants mentioned that they felt comfortable disclosing information to me that they might not share with locals due to concerns regarding anonymity and confidentiality.

Overall, youth and most adults with whom I interacted responded positively to my presence, perhaps since it provided them with a voice to express their concerns regarding the typically unspoken ‘downside’ of the ‘boom’. For example, many participants noted that the health and social impacts of the oil/gas industry are not usually discussed in FSJ. They explained that this was due to the tendency of many community members to ‘bury their heads in the sand’ – that is, to continue earning unprecedented incomes while ignoring issues perceived as unpleasant or inappropriate to discuss, such as those related to growing youth sexual ill-health and rampant drug and alcohol abuse. As well, during the course of my research, I noticed that many participants disclosed increasingly detailed and/or controversial information as we interacted over the 18 months that I visited their community. The rich and detailed data that I was able to gather using these methods suggest that these techniques enabled me to tap into deeper insights than would have been otherwise documented using traditional epidemiological methods.
4.1.4 The Importance of Socio-Cultural and Structural Determinants of STI Rates

While a large body of research has focused on identifying and attempting to modify risky sexual behaviour of individuals, the aim of this thesis was to portray how socio-cultural and structural features of a ‘booming’ resource-extraction community in Northeastern BC may affect sexual behaviour and access to sexual health services. The findings support a growing body of evidence regarding the importance of considering and addressing such factors in STI testing and prevention interventions (Potterat et al., 2002; Wylie and Jolly, 2001; Rhodes et al., 1996; Rhodes et al., 2005; Gunatilake, 1998; Shoveller and Johnson, 2006; Shoveller et al., 2004; Langille et al., 2001; Bendall et al., 2007; Waldo and Coates, 2000; Bronfenbrenner, 1995; Apostopoulos et al., 2002; Potterat et al., 1999; Rothenberg et al., 2005; Maticka-Tyndale and Herold, 1997; Bellis et al., 2004; Fortenberry et al., 2002; Evans et al., 2002; Tilson et al., 2004; Uuskula et al., 2006; McKay, 2006). In sum, the chapters of this thesis demonstrate that many socio-cultural and structural characteristics negatively affect youth sexual behaviour, and, moreover, that these features can exacerbate the health and social impacts of STIs. While health impact assessments (e.g., of the proposed MacKenzie Pipeline) have identified STIs as one anticipated health impact linked with resource-extraction in remote Canadian communities, the public health response has failed to keep pace with the rapid and expansive impacts of resource-based ‘development’ in BC and indeed in other communities across North America.

4.1.5 Making the Case for a ‘Place-based’ Analysis of ‘Development’

This thesis bridges two subject areas which were previously considered to be unrelated in North American contexts – STIs and the impacts of resource-extraction–
challenging an underlying assumption that the health and social impacts of these sectors documented in other contexts are not applicable to Western nations (Ross, 1999; Schubert, 2006). The antiquated literature on the problematic aspects of a resource-extraction ‘boom’ for health and social well being (e.g., ‘recent’ studies on this topic were published in the early 1980’s) indicates that this has not been perceived as a relevant issue within the contemporary Canadian context. However, a case may be made that the health and social impacts of resource-extraction (especially STIs) are more relevant than ever, as more people living in remote communities experience accelerated and magnified demographic, social, and economic transitions in an era of increasingly massive ‘development’. This is especially the case in Northeastern BC, where goals to double oil and gas production over 10 years have recently been announced (BC Ministry of Energy and Mines, 2007).

One potential explanation for the previous oversight of these issues in the Canadian context is that previously, the experiences of resource-extraction ‘hinterlands’ were analysed through an urban lens (Hayter, Barnes, and Bradshaw, 2003; Coates, 2001). Unfortunately, many of the analyses relied on oversimplified dichotomies (e.g., ‘urban’ – ‘rural’, ‘metropolis’ – ‘hinterland’, and ‘core’ – ‘periphery’) to characterize Canadian resource-extraction communities, including FSJ (Barman, 1996; Hayter, Barnes, and Bradshaw, 2003). By virtue of labelling places like FSJ based on what they are not (i.e., a ‘metropolis’ worthy of its own attention) (Coates, 2001), these descriptions fail to capture the complex and changing structural forces and social relations in such places (Massey, 1992). For example, descriptions of resource ‘peripheries’ as vast areas containing small towns that exhibit rural characteristics (e.g., everyone knows each other, people lead a simple lifestyle) do not reflect the ‘booming’ nature of communities like contemporary FSJ (Barman, 1996).

Another reason for the previous oversight of the types of health and social impacts presented in the current thesis may be related to the limitations of traditional notions of
‘development’. As Doreen Massey (1999, 1992) has observed, the discourse of ‘development’ conceptualizes communities’ experiences into an artificial, temporal sequence, implying that places are either ‘ahead’ or ‘behind’ on the same linear path to ‘progress’. Massey argues that fixating on the pace of economic ‘development’ as the prevailing outcome of interest shifts attention away from features of places (e.g., local social norms, geography, culture) that may be important for meaningful ‘development’.

Currently, official reports (e.g., community guides published by the municipality; newspaper articles) and much everyday rhetoric regarding the changes FSJ has undergone continue to reflect these prevailing notions (i.e., the colloquialism that ‘the only drawback to a boom is a bust’) – largely by focusing on the city’s achievements and ignoring what some residents referred to as ‘the dark side of the boom.’ For example, media representations of the conditions created by the ‘boom’ in Northeastern BC (and in many other communities) have focused on perceived indicators of positive ‘developments’, such as upshots in income and improvements to local infrastructure (e.g., in FSJ, a large casino and an upscale athletics complex, ‘Enerplex’, are under construction).

Alternatively, spending time in FSJ to investigate its current social and economic context revealed that local dynamics (including socio-cultural and structural relations) are more complex than previously described in the literature, and are rapidly changing in concert with the oil/gas ‘boom’ in Northeastern BC. By focusing on the links between the changing context and the health and social well-being of young people in FSJ, the analysis presented in the current thesis challenges assumptions regarding the impacts of resource-extraction in North America. It revealed that the pace and nature of the changes that have occurred in FSJ (i.e., the need to get oil/gas out of the ground at any human cost) do not take into account the wider health and social implications which, in addition to economic growth, are also perceived by local community members as important indicators of their well-being.
Natural resource economies are, by their very nature, volatile to shifts in price, supply, and other exogenous factors. Thus, exclusive dependence on sectors such as oil/gas poses substantial risks to the communities that are host to and affected by these industries (Coates, 2001; Hayter and Barnes, 2003). Since the findings described in this thesis suggest that FSJ’s economic development is not translating into meaningful progress on some social and health fronts, there is a need to revisit notions of progress to reflect those realities being experienced by the local population. Rather than ‘riding the crest’ of a ‘boom’ or waiting for the next mega-project, the findings suggest that researchers, policy-makers, community organizations, and industry should consult with local communities to address broader and more meaningful conceptualizations of social, cultural, and economic progress.

To revisit Amado’s novel that depicts a cacao ‘boom’ in Brazil the 1920’s, it becomes apparent that the health and social implications of ‘boom’ in a distant time and a distal location bear remarkable resemblances to the conditions documented in contemporary FSJ:

“This land of his was far from being really civilized. There was a lot of talk about progress; money flowed freely; the cacao built roads, established settlements, changed the face of the city. […] His romantic activity consisted only of temporary liaisons with girls he met in the cabarets, girls who belonged to others at the same time – light adventures in which there was no room for love. […] Nowadays he had no time for courtship […] He wanted to make money so he could buy land and grow cacao” (Amado, p.127, 1962).

In this segment of his novel, Amado touches upon impacts associated with changes to social norms, gender relations, levels of disposable income, sexual behaviour – all of which have been described as problematic by youth and their providers in Northeastern BC. Although the
challenges documented in FSJ were previously unidentified in this context, this resemblance indicates that these health and social impacts of ‘boom’ are not unique to contemporary FSJ.

4.2 DIRECTIONS FOR FUTURE RESEARCH

The example of FSJ was used in this thesis to illuminate those features of socio-cultural and structural context that may be important determinants of the sexual health status of young people who live in other remote, resource-extraction communities in North America. Although the results of the current qualitative study are not meant to be statistically generalizable, they are likely to be relevant to other resource-extraction industries that are associated with experiencing similar social and demographic circumstances. For example, in the fishing industry, workers who spend long periods of time on commercial fishing ships also earn high levels of disposable income and are reported to engage in drug and alcohol binges during their time off in rural and remote communities in BC. Similarly, loggers and miners spend significant amounts of time working in isolated locales and are also exposed to high levels of disposable income, drug and alcohol abuse, and highly gendered social contexts. According to service providers in BC, while STI outreach is perceived as highly necessary in these male-dominated and remote contexts, it is currently non-existent for these resource-extraction populations, and similar barriers to access in local communities are believed to persist (Personal Communication, 2008). Although the logging and fishing industries in BC are not currently experiencing the conditions of ‘boom’ that presently characterize the oil/gas (and to some extent, mining) industries, these sectors continue to employ workers who reportedly face similar occupational risks, suggesting that young resource-extraction workers across BC may contribute to increasing STI rates and require STI outreach. More research among other
populations of resource-extraction workers (e.g., loggers, fishermen, miners) as well as on the conditions in other North American ‘boomtowns’ and would establish the relevance of the findings more broadly and would help to establish a knowledge base on how the conditions created by resource-extraction affect both sexual health among workers as well as communities host to resource-extraction industries in contemporary times.

The findings presented suggest the need for future investigations of health and social well being in other remote, rapidly developing communities in North America. Fieldwork identified the need to address health/social issues such as housing, education, addictions, and reproductive health, that may arise and/or be exacerbated by an economic ‘boom’ in FSJ. As well, the findings do not adequately portray the experiences of more vulnerable sub-groups, such as sex workers. More detailed information on the health and social circumstances experienced by a broad spectrum of young people in these kinds of places would provide a stronger basis for public health interventions that address their needs and specific contexts.

Additional studies should include multiple communities and apply both qualitative as well as quantitative methods to develop and test hypotheses related to the sexual health impacts of rapid economic expansion in North American communities. For example, longitudinal analyses of the impact of ‘boom-bust’ cycles on STI rates and other indicators of health and social impacts would provide quantitative evidence for some of the hypotheses developed in this thesis. As well, analyzing demographic trends (e.g., migration; sex ratios; oil/gas labour market statistics) would provide an important basis for the allocation of public health resources to these under-serviced places. For example, it is recommended that future studies incorporate the collection of ethnographic and STI contact tracing data, and use innovative techniques such as mapping to gather and analyze information on migration (e.g., where young people are coming from; where they work), sexual networks (e.g., where and
with whom migrant workers engage in sexual risk behaviours) and potential venues for public health interventions (e.g., where workers can access STI testing).

As well, a gap exists in our understanding of how to implement these findings in practical ways. Meaningful collaborations between the public (e.g., public health, social services) and private (e.g., oil/gas companies and their sub-contractors) sectors to address these impacts are in their infancy in North America. The perspectives of industry on the sexual health of their workers and the ways in which sexual health interventions can be provided to them have yet to be explored in this context, warranting future investigation.

4.3 KNOWLEDGE TRANSLATION ACTIVITIES

To translate the results of my findings into public health action in the Northeast, I have undertaken an action-oriented knowledge translation and exchange (KTE) internship with the Northern Health Authority (NHA) and OPTions for Sexual Health (OPT), NHA’s new partner in the delivery of sexual health services across Northern BC. This internship is based on a two-pronged approach to addressing the STI problem in Northeastern BC: an STI awareness campaign and outreach to oil/gas workers.

4.3.1 Promoting Awareness

Recent syphilis outbreaks in the Northeast and neighbouring Alberta are further testimony to the urgent need to address the STI problem among youth in this region. Public health officials have expressed particular concern over outbreaks, as they are considered to have spread beyond ‘traditional risk groups’ (e.g., men who have sex with men) into the more general population of young people (e.g., young heterosexual women and men). As a
response, I am working with NHA/OPT to develop an awareness campaign to promote STI testing and prevention among youth and physicians in the Northeast. To tailor and target this to the needs of young men and women who live in the Northeast, I am incorporating findings that indicate youth’s preferences for how such a campaign may be delivered (i.e., perspectives on content, venues for delivery, design). As well, I am working with NHA/OPT to encourage testing for STIs by local physicians (e.g., by providing information regarding the local STI epidemic, sexual behaviours, and current barriers to testing).

4.3.2 Facilitating Outreach to Oil/Gas Workers

As well, NHA/OPT are interested in opportunities posed by oil/gas companies employing Northeastern youth to increase the scope of STI prevention and testing efforts by facilitating outreach to young workers in remote locales. However, such initiatives have yet to be undertaken in Canada, and little is known regarding the ways in which oil/gas industry may be engaged to accomplish this. Therefore, I am undertaking exploratory work to determine how STI testing and prevention resources can be delivered to young oil/gas workers. This will result in an industry profile of oil/gas companies in the region, containing information and details regarding the potential for STI outreach activities to oil/gas workers. In this way, companies that express willingness to collaborate to provide prevention resources (e.g., condoms, STI testing, awareness materials) to their workers will be clearly identified and initial relationships will be established with them. Thus, my KTE activities are creating opportunities to facilitate much-needed relationships between the NHA, OPT and oil/gas industry. This is intended to create a platform for public health action to address the sexual health needs of young, remote workers in this region for the first time. The
partnerships that are emerging as a result of these ongoing activities represent an innovative and practical way of approaching public health service delivery given the under-capacitated public health infrastructure in rural and remote communities.

4.3.3 Dissemination of Findings

NHA Public Health Nursing leadership and staff have been directly involved in the design and conduct of this project. STIs are perceived as a serious concern by the NHA, who undertook a review of their sexual health services during the course of the study in 2006. By partnering with public health at the outset, I was able to incorporate their input throughout the course of the research, increasing the potential of these findings to be useful and relevant to local policy efforts to design appropriate STI interventions for youth in the Northeast.

The knowledge translation implications of this study are strong due to the ties between this work and the NHA/OPT partnership that came into effect in August 2006. By presenting my results and participating in sexual health planning meetings, NHA/OPT were able to incorporate findings into the development and implementation of the NHA/OPT partnership in Northeastern BC. Study findings have been made available to NHA and OPT staff (e.g., through presentations; mid-term and final reports; telephone communications).

Findings of this study have also been made accessible to participants, community organizations, and oil/gas industry representatives. High-quality, lay language mid-term and final reports have been produced and widely disseminated for this purpose. Youth who elected to do so (via a check box on interview consent forms) were provided with a colourful lay language final summary of the study findings. As well, youth who participated in follow-up interviews were given copies of our mid-term report to comment on during the interview and to take home. Health and social service providers who participated and/or who indicated
interest in the study were provided with copies of our mid-term and final reports. These products have also been made publicly available for download through Dr. Shoveller’s website (www.youthsexualhealth.ubc.ca/Publications/Default.aspx).

Lastly, the results of this study complement and connect the findings of two ongoing studies: (1) Dr. Shoveller’s qualitative CIHR-funded study of STI testing in rural/Northern and urban BC communities (Quesnel, Prince George, Richmond, and Vancouver); and (2) Dr. Koehoorn’s quantitative CIHR-funded study of mining and community health in BC. In particular, ongoing comparison between the data gathered in FSJ and that gathered through Shoveller’s other project sites has enhanced our abilities to examine the impact of socio-cultural and structural influences on youth sexual health in communities across BC. For example, a report profiling the STI testing clinics that participated in FSJ, Quesnel, Prince George, Richmond, and Vancouver was produced, highlighting the prominent social and structural characteristics of each site. These reports were distributed to public health officials in the NHA as well as OPT staff during the sexual health service delivery planning process in the Northeast.
4.4 REFERENCES


Barman, J., 1996 The west beyond the west: A history of British Columbia. Toronto, University of Toronto Press.


Rhodes, T., Stimson, G.V., Quirk, A., 1996. Sex, drugs, intervention, and research: From the individual to the social. Substance Use & Misuse 31, 375-407.


5.0 APPENDICES

5.1 APPENDIX A: UBC BREB Original Ethics Approval Certificate

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**Certificate of Approval**

**Principal Investigator:** Shoveller, J.A.  
**Department:** Health Care/Epidemiology  
**Number:** B05-1198

**Institution(s) Where Research Will Be Carried Out:**  
UBC Campus

**Co-Investigators:**  
Goldenberg, Shira, Health Care/Epidemiology

**Sponsoring Agencies:**  
Michael Smith Foundation for Health Research

**Title:**  
Investigating Socio-Cultural and Structural Forces Affecting Youth's Sexually Transmitted Infection (STI) Testing and Treatment Experiences in Northeastern BC

**Approval Date:** APR 13 2006  
**Term (Years):** 1  
**Documents Included in This Approval:**  
April 3, 2006, Advertisement / Consent forms / Dec. 13, 2006, Questionnaires

**Certification:**  
The application for ethical review of the above-named project has been reviewed and the procedures were found to be acceptable on ethical grounds for research involving human subjects.

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*Approved on behalf of the Behavioural Research Ethics Board*  
by one of the following:  
Dr. Peter Suedfeld, Chair  
Dr. Susan Rowley, Associate Chair  
Dr. Jim Rupert, Associate Chair  
Dr. Arminee Kazanjian, Associate Chair

This Certificate of Approval is valid for the above term provided there is no change in the experimental procedures.
5.2 APPENDIX B: UBC BREB Amended Ethics Approval Certificates

The University of British Columbia
Office of Research Services
Behavioural Research Ethics Board
Suite 102, 6190 Agronomy Road, Vancouver, B.C. V6T 1Z3

CERTIFICATE OF APPROVAL - AMENDMENT & RENEWAL

<table>
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<tr>
<th>PRINCIPAL INVESTIGATOR:</th>
<th>DEPARTMENT:</th>
<th>UBC BREB NUMBER:</th>
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<tr>
<td>Jean Anne A. Shoveller</td>
<td>UBC/Medicine, Faculty of Health Care &amp; Epidemiology</td>
<td>H05-81198</td>
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INSTITUTION(S) WHERE RESEARCH WILL BE CARRIED OUT:

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<tr>
<td>UBC</td>
<td>Point Grey Site</td>
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Other locations where the research will be conducted:
Potential study participants will be recruited primarily through fieldwork. During the fieldwork, in-depth interviews also will be conducted. To begin recruitment for interviews, posters/pamphlets will be posted in clinics and emergency rooms, and other settings where youth congregate (e.g., washroom stalls at local coffee shops, bus stops) in Fort St. John. Recruitment also will be supplemented by referrals from existing community contacts [e.g., previous research contacts, public health units]. The Northern Health Authority has provided ethics approval for this recruitment protocol at their sites.

CO-INVESTIGATOR(S):
Mieke W. Koehoorn
Shira G. Goldenberg
Aleck S. Ostby

SPONSORING AGENCIES:
BC Medical Services Foundation - "Investigating Socio-Cultural and Structural Forces Affecting Youth's Sexually Transmitted Infection (STI) Testing and Treatment Experiences in Northeastern BC"

PROJECT TITLE:
Investigating Socio-Cultural and Structural Forces Affecting Youth's Sexually Transmitted Infection (STI) Testing and Treatment Experiences in Northeastern BC

CERTIFICATE EXPIRY DATE: March 30, 2008

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The application for continuing ethical review and the amendment(s) for the above-named project have been reviewed and the procedures were found to be acceptable on ethical grounds for research involving human subjects.
Approval is issued on behalf of the Behavioural Research Ethics Board and signed electronically by one of the following:

Dr. Peter Suedfeld, Chair
Dr. Jim Rupert, Associate Chair
Dr. Arminee Kazerian, Associate Chair
Dr. M. Judith Lynam, Associate Chair
Dr. Laurie Ford, Associate Chair
5.3 APPENDIX C: NHA Ethics Approval Certificate

NORTHERN HEALTH AUTHORITY transition RESEARCH COMMITTEE

COMMITTEE CORRESPONDENCE FORM – APPROVED

June 21, 2006

Dr. Jean A. Shoveller
Department of Health Care and Epidemiology
Faculty of Medicine
5804 Fairview Avenue, Mather Building
Vancouver, BC V6T 1Z3

Dear Dr. Shoveller:

Re: Investigating the structural and socio-cultural forces affecting STI testing and treatment among youth in Northeastern BC

On behalf of the Northern Health Authority transition Research Review Committee, I would like to thank you for your submission titled “Investigating the structural and socio-cultural forces affecting STI testing and treatment among youth in Northeastern BC”. An expedited review was completed. We found this to be an interesting and worthwhile study and look forward to seeing the results. The committee has approved this study.

Please be advised that the committee must review any changes or amendments to the design or execution of the study. We believe that this is an important project and look forward to receiving a copy of the study results/report upon its completion.

Sincerely,

Ruby Fraser RN, BN, CHE, MA (LT), CRM
Interim Committee Chair
Regional Director
Quality and Risk Management

Ruby Fraser RN, BN, CHE, MA (LT)
Regional Director
Quality and Risk Management
5.4 APPENDIX D: Subject Recruitment Poster

THE UNIVERSITY OF BRITISH COLUMBIA
Department of Health Care and Epidemiology
Vancouver, B.C. V6T 1Z3
Tel: (604) 822-2772
Fax: (604) 822-4994
www.healthcare.ubc.ca

If you are 15 – 24 years old, you may be eligible to receive $25 to participate in an interview about Sexual Health Services!

What is this study about?
This study aims to understand the experiences of young adults who have undergone testing for sexually transmitted infections (STIs) or who have considered an STI test but have not had one. By completing an interview, you will have an opportunity to share your experiences and insights with us. You must be HIV negative to participate. All interviews are strictly confidential. Interviews will take 1 hour and you will receive $25. Interviews will take place until July 2007.

Who is conducting this study?
This study is being conducted by researchers from the University of British Columbia. The Principal Researcher is Dr. Jean Shoveller at the Department of Health Care and Epidemiology. This study is funded by the BC Medical Services Foundation.

How can I find out more?
Phone: 1-888-822-6014 (toll-free)
E-mail: shiragol@interchange.ubc.ca
5.5 APPENDIX E: Subject Recruitment Telephone Guide

Eligibility Screening Tool: Investigating Socio-Cultural and Structural Forces Affecting Youth’s Sexually Transmitted Infection (STI) Testing Experiences in Northeastern BC

Thank you expressing interest in our study. I am going to first briefly explain the purpose of our study and then ask you a few questions to determine if you are eligible to participate.

Study Purpose: The purpose of this study is to better understand the experiences of young adults who have undergone testing for sexually transmitted infections (STIs), other than HIV. We are also interviewing a small number of youth who have not had STI testing, but who had considered having testing at some point in the past.

Recruitment Site: Please tell me how you heard about the project? Where did you see the recruitment notice?

Eligibility Questions: To determine if you are eligible, I want you to listen carefully to the following list of criteria. When I finish reading the entire list, please tell me if you qualify. Please answer only with a single YES or NO. After you have responded, I will let you know whether you are eligible to participate in this study.

To be eligible for our study, you must:
1. Speak English and be between 15 and 24 years old
2. Live or work in Fort St. John
3. Be sexually active now or have been in the past
4. Be HIV negative
5. Have had an STI test or have considered being tested for STIs.
If you meet all of these criteria, please answer with a YES; otherwise, answer with a NO. Do NOT tell me why.

If the caller IS NOT eligible to participate: Thank you for your honesty. Unfortunately, you are not eligible to participate in this study, but we really appreciate your interest and taking the time to call us.

If the caller IS eligible to participate: Thank you for answering these questions. You are eligible to participate in our study. Before we schedule an interview I would like to tell you a bit more about the study.

All eligible participants who consent to an in-depth interview will first be asked to complete a brief questionnaire (5 minutes). The information we collect through this questionnaire will be used to describe the characteristics (e.g., age, education, current sexual activity level) of the overall group of study participants. The interview itself will take approximately 1.5 to 2 hours to complete and it will be audio-taped. You do not have to answer any questions you do not want to and you may end from the interview at any time. You will receive $25 for completing the interview.

Do you have any questions? Would like to schedule an interview? [Schedule interview and thank the caller for his/her time.]
Who funds this study?

This study is supported by the British Columbia Medical Services Foundation

Principal Investigator:  
Dr. Jean Shoveller  
(UBC Health Care & Epidemiology)

Co-Investigators:  
Shira Goldenberg  
(UBC Health Care & Epidemiology)  
Dr. Mieke Koehoorn  
(UBC Health Care & Epidemiology)  
Dr. Alec Ostry  
(UBC Health Care & Epidemiology)

Research Coordinator:  
Shira Goldenberg  
(Health Care & Epidemiology)

If you would like to participate in an interview, please contact:

Shira Goldenberg  
Master's Student  
Research Coordinator

Email: shiragol@interchange.ubc.ca  
Telephone: 1-888-822-6014 (Toll-Free)  
Fax: 604-822-4994

We will provide you with further details about this study and answer any questions you have about the interview process. If you qualify for the study, an interview time will be arranged.

Investigating the Structural and Socio-Cultural Forces Affecting STI Testing Among Youth in Northeastern BC

“Investigating the Structural and Socio-Cultural Forces Affecting STI Testing Among Youth in Northeastern BC”

Here’s how you can become involved in a UBC study about your community and earn $25 for your participation!

Dr. Jean Shoveller  
Associate Professor  
Dept. of Health Care & Epidemiology  
5804 Fairview Avenue  
Vancouver, BC V6T 1Z3  
Shira Goldenberg  
Master's Student, Research Coordinator

Tel: 1-888-822-6014 (toll-free)  
Email: shiragol@interchange.ubc.ca
What is the purpose of this study?
This study aims to understand the experiences of young adults (15-24 years old) who have undergone testing for sexually transmitted infections (STIs) or who have considered testing but have not done so. We are interested in hearing about your experiences with STI testing, the health care system, and your reasons for seeking or not seeking an STI test. We are interested in learning how you think local boom and bust cycles in the oil, gas, and mining industries affect young people’s sexual behaviors and experiences with accessing sexual health services. Youth must be HIV negative to be eligible to participate.

How long will it take?
The interview will last approximately 1 hour. The interview will be audio-taped so your comments can be recorded accurately.

Who is doing this study?
This study is being conducted by researchers from the University of British Columbia’s department of Health Care and Epidemiology, Faculty of Medicine. The Principal Investigator of this study is Dr. Jean Shoveller.

You will be interviewed by a trained research assistant (RA). You will have the option to be interviewed by a female or male interviewer.

Potential benefits of this study
This study will provide you with a chance to reflect on your experiences with sexual health issues, STI testing, and the impacts of the oil, gas, and mining industries on sexual health. You will also have the opportunity to provide advice on ways to improve sexual health services in your community.

Potential risks of this study
Due to the personal nature of the research, some participants may experience uncomfortable memories or embarrassing feelings. If this happens to you, you will be reminded of your right to refuse to respond to any questions or to withdraw from the study at any time. The interviewer can also refer you to health and/or counseling services in your area that can assist you.

Is the interview confidential?
Yes, your identity will be kept strictly confidential. All documents will be identified only by a pseudonym (false name) and will be kept in a secure area. No names or other unique identifiers will be used in any published report. Audiocassettes will be erased upon withdrawal from or completion of the project. If you are under 19 years of age, you will not be required to get your parents’ consent to participate in this study. You will not be asked to reveal your STI status.

How can I participate?
Participation in this study is completely voluntary and you can refuse to answer any question, withdraw from the study, or stop the interview at any time.

If you would like to participate in an interview, please contact:

Shira Goldenberg
Research Coordinator

Email: shirago1@interchange.ubc.ca

Telephone: 604-822-6014 (in Vancouver)
           1-888-822-6014 (Toll-Free)

Fax: 604-822-4994

We will give you further details about this study and answer any questions you have about the interview process. If you qualify for the study, an interview time will be arranged.

You will receive $25 for participating in an in-depth interview.
5.7 APPENDIX G: Interview Consent Form for Youth

THE UNIVERSITY OF BRITISH COLUMBIA
Department of Health Care and Epidemiology
Vancouver, B.C. V6T 1Z3
Tel: (604) 822-2772
Fax: (604) 822-4994
Website: www.healthcare.ubc.ca

Informed Consent Form for Youth
“Investigating Socio-Cultural and Structural Forces Affecting Youth’s Sexually Transmitted Infection (STI) Testing Experiences in Northeastern BC”

Research Coordinator:
Shira Goldenberg
UBC Health Care & Epidemiology
1-888-822-6014
shiragol@interchange.ubc.ca

Principal Investigator:
Dr. Jean Shoveller
UBC Health Care & Epidemiology
(604) 822-3724
jean.shoveller@ubc.ca

Study Purpose: The purpose of this study is to better understand the experiences of young adults who have undergone testing for sexually transmitted infections (STIs). You have been invited to participate in this study because we are interested in hearing about your experiences with STIs and STI testing. We are conducting our study in Fort St. John, BC. By participating in this interview and completing a brief survey, you have the opportunity to tell your story. This work will be used to plan STI testing in Northeastern BC. The anonymous information collected will also be used by Shira Goldenberg as part of her Master’s thesis (a public document), as well as by Dr. Shoveller and her research team to supplement their investigation of youth’s experiences with STI testing and treatment in 6 BC communities.

Study Methods: The study includes an opportunity for you to participate in an interview with a UBC researcher. During the interviews, you will be invited to tell your story in your own words and in your own way. Some study participants also will have the chance to participate in a follow-up interview. Each interview will be audio-taped. Each interview will take 1-1.5 hours and you will receive $25 for each interview that you complete.

Interview 1: During the first interview you will be asked questions about your perspectives on youth sexual behaviour and your experiences with having an STI test. This interview will be conducted in person. We’ll ask you questions about the reasons you wanted to get tested and what you thought the test would be like. You also will be asked to describe your experiences during the test (i.e., the physical procedures). We will not ask you to reveal the results of your test and you are not expected to tell us the results. We’ll also ask questions about what it is like to be a young person living in your community in order to learn more about the ways that our health care system can be improved to help youth gain better access to STI testing.

Interview 2: A small sub-group of people who complete interviews will also be invited to participate in a second, follow-up interview. The purpose of the second interview is to follow up on important ideas that you identified during your first interview and to ask you to talk about
how you perceive these experiences to influence your subsequent sexual health behaviour. To help us keep in touch, we also will ask you to give us the name and phone number (or email) of someone who you trust will be able to provide your up-to-date contact information, if we should lose touch with you.

Your participation in this study is entirely voluntary. The decision to participate (or not) is totally up to you. You may choose at any time not to answer a question, change your responses, withdraw an answer, or stop the interview. Refusal or withdrawal from the study will in no way affect any treatment, clinical care, or support that you are currently receiving.

**Confidentiality:** Your identity will be kept strictly confidential. We will not release your name to anyone. Audio-tapes will be transcribed, identified only by false name, and will be securely locked in a filing cabinet. Your participation in this study may be used for the purposes of presentations and/or publications resulting from this study. No names or other unique identifiers will be included in the transcripts or used in any published report. Shira Goldenberg, Dr. Jean Shoveller, and Dr. Shoveller’s research team are the only people who will have access to your data.

“Your rights to privacy are also protected by the Freedom of Information and Protection of Privacy Act of British Columbia. This Act lays down rules for the collection, protection, and retention of your personal information by public bodies, such as the University of British Columbia and its affiliated teaching hospitals. Further details about this Act are available upon request.” (Freedom of Information and Protection of Privacy Act of British Columbia)

If you have any questions about this study at any time, please contact Shira Goldenberg or Dr. Jean Shoveller at the phone numbers listed above. If you have any concerns about your treatment or rights as a research subject, please contact the Research Subject Information Line in the UBC Office of Research Services at (604) 822 – 8598.

By signing this consent form, you are giving consent to participate in this study. You understand that your participation in this study is entirely voluntary and that you may refuse to participate, refuse to be audio-taped, or withdraw from the study at any time. You also acknowledge that you have received a copy of this consent form for your own records, and that you may be contacted in the future to further participate in this study and/or to receive feedback on the results of the study. You understand that the interviewer has a legal responsibility to report abuse of minors. Due to the sensitive nature of this topic, you may experience uncomfortable feelings or memories. If this happens, the interviewer can refer you to someone local (e.g., counselor, psychologist, crisis lines, sexual health clinic) who can assist you.

☐ Check this box if you agree to have today’s interview audio-taped.

Participant Signature ____________________________ Date ____________

Participant Name (please print) ____________________________

☐ Check this box if you would like to receive a summary of the study findings. If you do not want to be contacted in the future, you can still participate in the current study.
E-mail Address (please print): ________________________________

Mailing Address: ________________________________

Telephone #: ________________

My false name is: ________________
5.8 APPENDIX H: Interview Consent Form for Service Providers

THE UNIVERSITY OF BRITISH COLUMBIA
Department of Health Care and Epidemiology
Vancouver, B.C. V6T 1Z3
Tel: (604) 822-2772
Fax: (604) 822-4994
Website: www.healthcare.ubc.ca

Informed Consent Form for Service Providers
“Investigating Socio-Cultural and Structural Forces Affecting Youth’s Sexually Transmitted Infection (STI) Testing and Treatment Experiences in Northeastern BC”

Research Coordinator:
Shira Goldenberg
UBC Health Care & Epidemiology
1-888-822-6014
shiragol@interchange.ubc.ca

Principal Investigator:
Dr. Jean Shoveller
UBC Health Care & Epidemiology
(604) 822-3724
jean.shoveller@ubc.ca

Study Purpose: The purpose of this study is to better understand the experiences of young adults who have undergone testing for sexually transmitted infections (STIs). You have been invited to participate in this study because we are interested in hearing about your experiences providing STI testing to youth. We are conducting our study in Fort St. John, BC. This work will be used to guide planning in the area of STI testing in Northeastern BC. The anonymous information collected will also be used by Shira Goldenberg as part of her Master’s thesis (a public document), as well as by Dr. Shoveller and her research team to supplement their investigation of youth’s experiences with STI testing and treatment in 6 BC communities.

Study Methods: The study includes an opportunity for you to participate in an interview with a UBC researcher. During the interviews, you will be invited to tell your story in your own words and in your own way. Each interview will be audio-taped and will take approximately 1 hour.

During the first interview you will be asked questions about your experiences providing young people with STI testing services. We’ll also ask questions about social attitudes toward youth sexual activity and the accessibility of STI testing in your community in order to learn more about the ways that our health care system can be improved to help youth gain better access to STI testing. This interview will be conducted in person.

Your participation in this study is entirely voluntary. The decision to participate (or not) is totally up to you. You may choose at any time not to answer a question, change your responses, withdraw an answer, or stop the interview.

Confidentiality: Your identity will be kept strictly confidential. We will not release your name to anyone. Audio-tapes will be transcribed, identified only by false name, and will be securely locked in a filing cabinet. Your participation in this study may be used for the purposes of presentations and/or publications resulting from this study. No names or other unique identifiers will be included in the transcripts or used in any published report. Shira Goldenberg, Dr. Jean
Shoveller, and Dr. Shoveller’s research team are the only people who will have access to your data.

“Your rights to privacy are also protected by the Freedom of Information and Protection of Privacy Act of British Columbia. This Act lays down rules for the collection, protection, and retention of your personal information by public bodies, such as the University of British Columbia and its affiliated teaching hospitals. Further details about this Act are available upon request.” (Freedom of Information and Protection of Privacy Act of British Columbia)

If you have any questions about this study at any time, please contact Shira Goldenberg or Dr. Jean Shoveller at the phone numbers listed above. If you have any concerns about your treatment or rights as a research subject, please contact the Research Subject Information Line in the UBC Office of Research Services at (604) 822 – 8598.

By signing this consent form, you are giving consent to participate in this study. You understand that your participation in this study is entirely voluntary and that you may refuse to participate, refuse to be audio-taped, or withdraw from the study at any time. You also acknowledge that you have received a copy of this consent form for your own records, and that you may be contacted in the future to further participate in this study and/or to receive feedback on the results of the study. You understand that the interviewer has a legal responsibility to report abuse of minors.

☐ Check this box if you agree to have today’s interview audio-taped.

Due to the sensitive nature of this topic, you may experience uncomfortable feelings or memories. If this happens, the interviewer can refer you to someone local (e.g., counselor, psychologist, crisis lines, sexual health clinic) who can assist you.

Participant Signature ___________________________ Date _____________

Participant Name (please print) ___________________________

☐ Check this box if you would like to receive a summary of the study findings. If you do not want to be contacted in the future, you can still participate in the current study.

E-mail Address (please print): ___________________________

Mailing Address:

__________________________________________________________

__________________________________________________________

Telephone #: ___________________________

My false name is: ___________________________
5.9 APPENDIX I: Initial Interview Guide for Youth Who Have Had STI Testing

Review the informed consent and interview structure:

- This session will be audio taped and will last about 1.5 hours. We’ll begin our interview by completing a brief questionnaire (5 mins). The information we collect through the survey will be used to describe the characteristics (e.g., age, education, current sexual activity level) of the overall group of study participants. Then I will ask you some questions about your experiences with STI testing. While we’re talking, I’ll ask you to tell me about your symptoms, what you had to do when you went for your STI test, and the treatment you received (if any was required). During the interview, I’ll be taking a few notes about the events and experiences you describe.
- Review options for referrals to counseling services.
- Any questions about how we’re going to spend our time today?

Reasons for Getting STI Testing
1. Tell me the story about how you came to get tested for STIs. Start anywhere you want.

Examples of Probes:

- What kinds of symptoms did you experience, if any?
- What kinds of symptoms did your partner experience, if any?
  - *If yes:* Did you notice that your partner had symptoms that s/he didn’t tell you about? Did you speak to your partner about this? Did your partner’s symptoms influence your decision to get an STI test?
- What did you know about STI testing at that time? Where did you learn about this information? What kinds of information did you want [or need] to know?

2. Some young people have told us that they get tested when they end a sexual relationship, even if they do not experience any symptoms. Others have told us they get STI testing before they start having sex with a new partner, and ask their partners to do the same. Tell me what you think of these reasons for getting tested.

Descriptions of the Clinic
3. Tell me about the clinic where you were tested.

Examples of Probes:

- How would you describe the clinic?
- What was it like when you walked into the clinic? How was it organized in terms of the reception area, the waiting area, the clinic rooms, the toilets, etc.?
- Tell me what it was like to be in the waiting area? What was it like to be in the examination room – when you were waiting for the doctor, after your exam, etc.?
- How did you find/locate the clinic? How did you get to the clinic?
- What made you decide to get tested at this particular clinic instead of another one? Or, did you have a choice?
- Was this your first visit to the clinic? Have you ever been tested before? Where?
Experiences at the Clinic
4. When you think back on the procedures that you underwent at the clinic, how would you describe those procedures? What took place? **Reminder:** You do **not** have to tell me what the results of your STI test(s).

Examples of Probes:
- Were your interactions with female or male health care workers (e.g., nurses or doctors) or both? Tell me about what it was like to interact with those service providers.
- What kinds of discussions did you overhear at the clinic:
  - Between staff and clients?
  - Between staff themselves?
  - Between clients?
- Tell me whether you have a preference to be seen by a woman or a man. Did you have a choice or did you _feel_ like you could have a choice? How were those choices presented to you?
- What kinds of questions did you get asked: at the reception area? When you say the nurse saw? When you saw the doctor?
  - Did you have questions about the reasons they were asking you those questions? About the testing procedures themselves? About follow-up?
- Did any of the staff ask what your sexual orientation is?
  - Did you volunteer this information or did you feel you had to tell staff what your sexual orientation is? How did this make you feel?
  - How important is it to you to have staff know your sexual orientation?
- What kinds of questions did **you** ask or want to ask: the receptionist? (did you ask them?) the nurses (did you ask them?) the doctors (did you ask them?)
  - How well did the health care providers answer your questions?

Where Youth Live
5. Where we live affects our experiences in many ways. This includes both the geographic location (e.g., your town, your neighbourhood) as well as your social standing (e.g., income level, age, class, ethnicity) within your community. How would you describe the ways in which the place where you live affected your experiences with STI testing?

Examples of Probes:
- Privacy issues?
- Anonymity? Confidentiality?
- Transportation issues?

6. If STI testing was not available or accessible in your community, what would you do?

Examples of Probes:
- What do you think it might be like trying to access STI testing or treatment services if you lived in a small town [or big city]?

7. In some communities, some ideas about sexuality have changed considerably in the past 30 years. Tell me about some of the changes that you think that your community has experienced related to this idea.

Examples of Probes:
How would you describe the way your community feels about young men being sexually active? What about young women?

What similar or different (often unspoken) “rules” or expectations do young women and young men live under in your community when it comes to sex or their sexuality?

What happens when a young woman doesn’t obey or follow the “rules” or expectations in your community?

What happens when a young man doesn’t obey or follow the “rules” or expectations in your community?

How might these “rules” differ depending on a young person’s sexual identity? their ethnicity? their religious beliefs? or their peer group?

**Sociocultural & Religious Attitudes and STI Testing**

8. Some people have talked about the influence of their religious beliefs or spirituality or cultural background (i.e., if you’re Irish, Filipino, Indo-Canadian) on decisions around their sexual health.

Examples of Probes:
- How do you think your ethnic identity and/or religious/spiritual beliefs affected your experiences with STI testing?
- How do you think that the ethnic identity and/or religious/spiritual beliefs of a STI testing service provider might affect your interactions with them?

**STI Testing Supports**

9. Thinking back about to your STI testing experience and to what we have discussed today, what would you tell someone else who was thinking about getting STI testing? Young women [men]?

10. How can service providers do a better job of supporting young women [and men] who:
- Are getting STI testing?
- Have been diagnosed with an STI?

**Closing Remarks**

11. Is there anything else you want to tell me about your experiences with sexual health behaviour and outcomes?

12. Do you know of another youth who might be interested in completing an interview like this? If so, please give them this card and ask them to call our toll-free number.
5.10 APPENDIX J: Initial Interview Guide for Youth Who Have Not Had STI Testing

Review the informed consent and interview structure:
- This session will be audio taped and will last about 1.5 hours. We’ll begin our interview by completing a brief questionnaire (5 mins). The information we collect through the survey will be used to describe the characteristics (e.g., age, education, current sexual activity level) of the overall group of study participants. Then I will ask you some questions about why you decided not to seek an STI test. While we’re talking, I’ll ask you to tell me about why you thought you might potentially need an STI test, why you decided not to have an STI test, and how you made this decision. During the interview, I’ll be taking a few notes about the events and experiences you describe.
- Review options for referrals to counseling services.
- Any questions about how we’re going to spend our time today?

Decision making about STI Testing
1. Tell me the story about why you thought you might want to get tested for STIs. Start anywhere you want.
   Examples of Probes:
   - What made you think you might wanted to get tested?
   - What did you know about STI testing at that time?

2. When you think back to the time when you thought you might seek an STI test, what were the factors you took into consideration to make this decision?
   Examples of Probes:
   - What kinds of symptoms did you experience, if any?
   - Did your partner experience any symptoms?
   - Did you notice that your partner had symptoms that s/he didn’t tell you about?
     - If yes: Did you speak to your partner about this?
     - Were your partner’s symptoms one reason why you initially thought about getting an STI test?
   - Did you seek anyone’s advice in making this decision (e.g., your sexual partner, a friend, or a health care professional)?

Information about STI Testing
3. When you were trying to make a decision about getting tested, what kinds of new information did you learn about STI testing before making your decision?
   Examples of Probes:
   - Where did you learn about this information?
   - What kinds of information did you want [or need] to know?
   - What kinds of questions did you ask or want to ask: adults, including health care providers or teachers, etc.? (did you ask them?) other young women (did you ask them?) other young men (did you ask them?)
     - How well did the adults/peers answer your questions?

4. At the time you were making this decision, what did you know about the places where you could go to get tested for STIs?
Examples of Probes:

- If you did NOT know where you could get an STI test, was this a reason why you decided not to get tested?
- If you did know where you could get an STI test, was there something about the STI testing clinic that made you hesitant to get tested (e.g., the location of the clinic, transportation issues, the gender of clinic staff, privacy concerns)?

**Where Youth Live**

5. Where we live affects our experiences in many ways. This includes both the geographic location (e.g., your town, your neighbourhood) as well as your social standing (e.g., income level, age, class, ethnicity) within your community. How would you describe the ways in which the place where you live might affect your experiences with trying to get an STI test?

Examples of Probes:

- Privacy issues?
- Anonymity? Confidentiality?
- Transportation issues?

6. If STI testing was not available or accessible in your community, what would you do?

Examples of Probes:

- What do you think it might be like trying to access STI testing or treatment services if you lived in a small town [or big city]?

7. In some communities, some ideas about sexuality have changed considerably in the past 30 years. Tell me about some of the changes that you think that your community has experienced related to this idea.

Examples of Probes:

- How would you describe the way your community feels about young men being sexually active? What about young women?
- What similar or different “rules” or expectations do young women and young men live under in your community when it comes to sex or their sexuality?
- What happens when a young woman doesn’t obey or follow the “rules” or expectations in your community?
- What happens when a young man doesn’t obey or follow the “rules” or expectations in your community?
- How might these “rules” or expectations differ depending on a young person’s sexual identity, ethnicity, religious beliefs, or peer group?

**Sociocultural & Religious Attitudes and STI Testing**

8. Some people have talked about the influence of their religious beliefs or spirituality or cultural background (i.e., if you’re Irish, Filipino, Indo-Canadian) on decisions around their sexual health.

a. How do you think your ethnic identity and/or religious/spiritual beliefs affected your experiences with STI testing?

b. How do you think that the ethnic identity and/or religious/spiritual beliefs of a STI testing service provider might affect your interactions with them?
STI Testing Supports
9. Thinking back to what we have discussed today, what would you tell someone else who was thinking about getting STI testing? Young women [men]?

Closing Remarks
10. Is there anything else you want to tell me about your experiences with sexual health behaviour and outcomes?

11. Do you know of another youth who might be interested in completing an interview like this? If so, please give them this card and ask them to call our toll-free number.
5.11 APPENDIX K: Initial Interview Guide for Service Providers

Review the informed consent and interview structure:
- This session will be audio taped and will last about 30 minutes to 1 hour. I will ask you some questions about your experiences working with youth who seek STI testing. During the interview, I’ll be taking a few notes about the events and experiences you describe to me.
- Any questions about how we’re going to spend our time today?

Professional Background & Education
To begin, I’d like you to tell me a bit about your professional background and education.
- What’s your professional role [here at the clinic]?
  Examples of Probes:
  - Where did you receive your training? Qualifications?
  - When did you graduate? When did you start your career?
  - How long have you been practicing your current profession?
  - How long have you been practicing in this particular community? At this employer/clinic?

Accessing STI Testing
2. Now, I’d like to hear about the kinds of services related to sexual health that are available to young people in your community.
- What kinds of services do you offer [within your clinic]?
- What other kinds of services are available here [through your clinic]?

STI CLINIC STAFF:
- How do you determine what STIs each of your clients should be tested for?

Examples of Probes for STI clinics:
- Where can young women go to receive testing for STIs? Have you ever referred a young woman to one of these services?
  - What did you tell them?
  - What kind of feedback have you received from these young women about their experiences seeking an STI test?
- Where can young men go to receive STI testing? Have you ever referred a young man to one of these services?
  - What did you tell them?
  - What kind of feedback have you received from these young men about their experiences seeking an STI test?

3. In previous studies, some young have told us that they have requested pap tests with the expectation that they would also be tested for STIs without having to necessarily ask for an STI test.
- How often do you think this situation happens at the clinic where you work?
- When young women request pap tests at your clinic, what kinds of information about the test do you discuss with them?
4. Do staff at your clinic ask clients about their sexual orientation?
   - In what ways would this information affect the services that are provided to young women [men]? 

5. Have you ever faced a situation where a client’s confidentiality was breached?
   a. *If yes:* What happened and how was this dealt with?
   b. *If no:* How would you deal with such a breach?

**Where We Live and Work**

6. The communities where we live and work can affect our experiences in many ways. This includes both the geographic location (e.g., your town, your neighbourhood) as well as your social standing (e.g., income level, age, class, ethnicity) within your community. How would you describe the ways in which the community where you live affects young women’s [men’s] experiences with sexual health and sexual health services?

   Examples of Probes:

7. How would you describe the ways in which the community where you practice affects young women’s [men’s] experiences with STI testing? How would you describe the ways in which the community where you live affects young women’s [men’s] experiences with STI testing?

   Examples of Probes:
   - Privacy? Anonymity? Confidentiality? Transportation?

8. How does the community where your clinic/office is located affect the way you practice?

9. In some communities, some ideas about sexuality have changed considerably in the past 30 years.

   Examples of Probes:
   - How would you describe the way your community feels about young men being sexually active? What about young women?
   - What similar or different (often unspoken) “rules” or expectations do women and men live under in your community when it comes to sex or their sexuality?
   - What happens when a young woman doesn’t obey or follow the rules or expectations in your community?
   - What happens when a young man doesn’t obey or follow the rules or expectations in your community?
   - How might these rules or expectations differ depending on a young person’s sexual identity, ethnicity, religious beliefs, or peer group?
   - What kinds of discussion have you and your colleagues here had about these kinds of issues? How have your approaches to providing services to young women [young men] been affected by these discussions?

**Sociocultural & Religious Attitudes and STI Testing**

10. Some people have talked about the influence of their religious beliefs or spirituality or cultural background (i.e., if you’re Irish, Filipino, Indo-Canadian) on decisions around their sexual health.

   Examples of Probes:
• How do you think your ethnic identity and/or religious/spiritual beliefs affected your experiences with providing STI testing to young women [men]?
• How do you think that the ethnic identity and/or religious/spiritual beliefs of a young woman [or man] might affect your interactions with them?
• What kinds of discussions have you and your colleagues here had about these issues?

**STI Clinics: Tour of Clinic**
Invite them to take us on a “tour” of their clinical spaces. Ask permission to keep the tape running during the tour. This is also where we’ll be taking photos of the spaces themselves (no people will be photographed).

**Closing Remarks**
• Are there further insights you would like to share (e.g. any opinions, feelings)?
• Do you know of another key stakeholder who might be interested in completing an interview like this? If so, please give them this card and ask them to call our toll-free number.
5.12 APPENDIX L: Follow-up Interview Guide for Youth

Review the informed consent and interview structure:
• This session will be audio taped and will last about 1.5 hours. The purpose of this interview is primarily to tell you about some of my study findings and to get your feedback on the data (e.g., to find out what you identify with that other participants said). I'll also explain some of the recommendations we're considering to improve STI testing for young people in Fort St. John, and would like to hear your ideas on what might work, and what we might be getting wrong. I will also ask you some questions about your experiences with STI testing since the last interview. During the interview, I’ll be taking a few notes about the events and experiences you describe to me.
• Review options for referrals to counseling services.
• Any questions about how we’re going to spend our time today?

Follow-up Questions:
1. Now that you know more about STIs (e.g., symptoms, risks) and STI testing (e.g., where services can be accessed locally), how has this information affected you?

   Examples of Probes:
   • What does this information mean to you?
     i. Have you thought about STIs and STI testing differently since our last interview?
     ii. What have you thought about with regards to STIs since our last interview?

   • How has it been helpful or unhelpful?
     i. Have you had any experiences since the last interview during which you drew upon anything we discussed?
     ii. Has it affected your likelihood to get tested for STIs?
        • If participant has been tested for STIs since last interview for the first time, refer to end of interview guide for questions regarding the STI testing experience

   • Did you talk about the interview or any sexual health issues with anyone after the interview?

   • Have you had any experiences since the last interview that pertain to the issues we discussed in any other ways?

2. Here’s a summary of what we’ve heard so far from other youth in Fort St. John. I’m going to run our findings by you and ask you to comment on our findings.

   Study participants identified **5 key barriers** to STI testing for youth in Fort St. John:
   ➢ Limited opportunities for youth to access STI testing
   ➢ Geographic inaccessibility of clinics
   ➢ Local social norms
   ➢ Lack of information regarding STIs and testing options; and
   ➢ Negative interactions with service providers
• Do you identify with some of these concerns?
• What do you think is important about these findings?
• What do you feel is missing? Is there anything that we’ve misunderstood?

3. Based on what we’ve discussed until now, I would like get your input on some strategies we’ve considered to improve STI testing for young people in Fort St. John.

• We have prepared a number of suggestions for how to do this
  ➢ Improve opportunities for youth to access STI testing
    o Increase hours of operation, especially evenings and weekends
    o Provide a drop-in service at the public health unit, and consider offering 30 minute appointments rather than 1 hour appointments
  ➢ Outreach to youth populations
    o Engage in outreach activities to oil and gas sites (e.g., provide information, staff training, testing, and free condoms)
    o Within town, partner with other youth organizations to ensure that young people know the locations, hours of operation, and testing services provided in Fort St. John
  ➢ Local social norms
    o Launch an information campaign to promote sexual health among young people (and to reduce stigma related to STIs)
  ➢ Provide information regarding STIs and testing options
    o Advertise available STI testing services and locations
    o Ensure that these materials are distributed to oil and gas workers
    o Train local volunteers to engage in public education efforts related to promotion of youth sexual health
  ➢ Improve clinical rapport
    o Provide ongoing training and support for service providers (e.g., OPTions for Sexual Health training)

• What do you think about these suggestions?
• What else do you think we should add to this list?
• Are there any other ways you can think of that service providers can better serve youth seeking STI testing?

4. Thinking back to your STI testing experience and to what we have discussed today, what would you tell someone else who was thinking about getting STI testing?

Closing Remarks
5. Is there anything else you want to tell me about your experiences with sexual health issues?

6. Do you know of another youth who might be interested in completing an interview like this? If so, please give them this card and ask them to call our toll-free number.
***If Participant was Tested: Reasons for Getting STI Testing

1. Tell me the story about how you came to get tested for STIs. Start anywhere you want.

   Examples of Probes:
   - What kinds of symptoms did you experience, if any?
   - What kinds of symptoms did your partner experience, if any?
     - If yes: Did you notice that your partner had symptoms that s/he didn’t tell you about? Did you speak to your partner about this? Did your partner’s symptoms influence your decision to get an STI test?
   - What did you know about STI testing at that time? Where did you learn about this information? What kinds of information did you want [or need] to know?

2. Some young people have told us that they get tested when they end a sexual relationship, even if they do not experience any symptoms. Others have told us they get STI testing before they start having sex with a new partner, and ask their partners to do the same. Tell me what you think of these reasons for getting tested.

   Descriptions of the Clinic
   3. Tell me about the clinic where you were tested.

      Examples of Probes:
      - How would you describe the clinic?
      - What was it like when you walked into the clinic? How was it organized in terms of the reception area, the waiting area, the clinic rooms, the toilets, etc.?
      - Tell me what it was like to be in the waiting area? What was it like to be in the examination room – when you were waiting for the doctor, after your exam, etc.?
      - How did you find/locate the clinic? How did you get to the clinic?
      - What made you decide to get tested at this particular clinic instead of another one? Or, did you have a choice?
      - Was this your first visit to the clinic? Have you ever been tested before? Where?

   Experiences at the Clinic
   4. When you think back on the procedures that you underwent at the clinic, how would you describe those procedures? What took place? Reminder: You do not have to tell me what the results of your STI test(s).

      Examples of Probes:
      - Were your interactions with female or male health care workers (e.g., nurses or doctors) or both? Tell me about what it was like to interact with those service providers.
      - What kinds of discussions did you overhear at the clinic:
        - Between staff and clients?
        - Between staff themselves?
        - Between clients?
      - Tell me whether you have a preference to be seen by a woman or a man. Did you have a choice or did you feel like you could have a choice? How were those choices presented to you?
      - What kinds of questions did you get asked: at the reception area? When you saw the nurse? When you saw the doctor?
o Did you have questions about the reasons they were asking you those questions? About the testing procedures themselves? About follow-up?

- Did any of the staff ask what your sexual orientation is?
  o Did you volunteer this information or did you feel you had to tell staff what your sexual orientation is? How did this make you feel?
  o How important is it to you to have staff know your sexual orientation?

- What kinds of questions did you ask or want to ask: the receptionist? (did you ask them?) the nurses (did you ask them?) the doctors (did you ask them?)
  o How well did the health care providers answer your questions?

Where Youth Live

5. Where we live affects our experiences in many ways. This includes both the geographic location (e.g., your town, your neighbourhood) as well as your social standing (e.g., income level, age, class, ethnicity) within your community. How would you describe the ways in which the place where you live affected your experiences with STI testing?

Examples of Probes:

- Privacy issues?
- Anonymity? Confidentiality?
- Transportation issues?

6. If STI testing was not available or accessible in your community, what would you do?

Examples of Probes:

- What do you think it might be like trying to access STI testing or treatment services if you lived in a small town [or big city]?

7. In some communities, some ideas about sexuality have changed considerably in the past 30 years. Tell me about some of the changes that you think that your community has experienced related to this idea.

Examples of Probes:

- How would you describe the way your community feels about young men being sexually active? What about young women?
- What similar or different (often unspoken) “rules” or expectations do young women and young men live under in your community when it comes to sex or their sexuality?
- What happens when a young person doesn’t obey or follow the “rules” or expectations in your community?
- How might these “rules” differ depending on a young person’s sexual identity? their ethnicity? their religious beliefs? or their peer group?
5.13 APPENDIX M: Questionnaire for Youth

THE UNIVERSITY OF BRITISH COLUMBIA
Department of Health Care and Epidemiology
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Tel: (604) 822-2772
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Website: www.healthcare.ubc.ca

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Principal Investigator:
Dr. Jean Shoveller
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(604) 822-3724
jean.shoveller@ubc.ca

Date of interview:_________________________ Participant’s pseudonym:_________________________

To be completed by youth:

1. Age? _____ years

2. How would you best describe your ethnicity?
   □ Aboriginal [Inuit, Métis, First Nation (status), First nation (non-status)]
   □ Arab/West Asian (e.g., Armenian, Egyptian, Iranian, Lebanese, Moroccan)
   □ Black (e.g., African, Haitian, Jamaican, Somali)
   □ Chinese
   □ Filipino
   □ Japanese
   □ Korean
   □ Latin American
   □ South Asian (e.g., East Indian, Pakistani, Punjabi, Sri Lankan)
   □ South East Asian (e.g., Cambodian, Indonesian, Laotian, Vietnamese)
   □ White (Caucasian)
   □ Other: Please specify: ____________________________

   □ Born in Canada
   □ Immigrated to Canada

3. How long have you lived in Fort St. John? _______ Years _____ Months

4. I am currently living:
   □ Alone
   □ With friends
   □ With my parents/family
   □ In university residence
   □ With my partner/spouse
5. Are you currently involved in sexual relationships? (check all that apply)
□ No, I am not involved in a sexual relationship at this time.
□ Yes, with a woman
□ Yes, with more than one woman
□ Yes, with a man
□ Yes, with more than one man

6. Have you ever been tested for a sexually transmitted infection (STI)?
□ No
□ Yes – please write the number of times you’ve been tested: _____ times

7. What is your current postal code?
5.14 APPENDIX N: Questionnaire for Service Providers

THE UNIVERSITY OF BRITISH COLUMBIA
Department of Health Care and Epidemiology
Vancouver, B.C. V6T 1Z3
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Principal Investigator:
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jean.shoveller@ubc.ca

Date of interview: ________________
Participant’s pseudonym: ________________

To be completed by service providers:

1. Age? _____ years

2. How would you best describe your ethnicity?
   □ Aboriginal [Inuit, Métis, First Nation (status), First nation (non-status)]
   □ Arab/West Asian (e.g., Armenian, Egyptian, Iranian, Lebanese, Moroccan)
   □ Black (e.g., African, Haitian, Jamaican, Somali)
   □ Chinese
   □ Filipino
   □ Japanese
   □ Korean
   □ Latin American
   □ South Asian (e.g., East Indian, Pakistani, Punjabi, Sri Lankan)
   □ South East Asian (e.g., Cambodian, Indonesian, Laotian, Vietnamese)
   □ White (Caucasian)
   □ Other: Please specify: __________________________

   □ Born in Canada
   □ Immigrated to Canada

3. How long have you lived in Fort St. John? _______ Years _____ Months

4. What is your current postal code?